

**STEVENSON****HOWELL'S****STANDARD****ESSENTIAL****OILS****OF****GUARANTEED****PURITY**

— SAMPLES AND QUOTATIONS, UPON APPLICATION —

Ol. Amygd. Ang.  
S.A.P.

Ol. Anisi Ang.

Ol. Anisi, China  
Star

Ol. Anethi Ang.

Ol. Anthemidi  
Ang.

Ol. Aurantii Dulc.

Ol. Aurantii  
AmaraOl. Bergamot. Se-  
lecta

Ol. Cajuputi

Ol. Carui Ang.

Ol. Carui Exot.

Ol. Caryophylli

Ol. Cinnamomi  
cort. ver.

Ol. Copaibæ Ang.

Ol. Coriandri Ang.

Ol. Cubebæ Ang.

Ol. Eucalypti  
Glob.

Ol. Juniperi Ang.

Ol. Lavandulæ  
Mitch.Ol. Lavandulæ  
Flor. Exot.Ol. Limonis Se-  
lectaOl. Menth. Pip.  
Ang.Ol. Menth. Pip.  
Exot.

Ol. Menth. Viridis

Ol. Myristicæ

Ol. Pimentæ

Ol. Pini Sylvestris

Ol. Rosmarini

Ol. Rutæ

Ol. Sabinæ

Ol. Santali Flav.  
Ang.

Ol. Sinapis

**STANDARD WORKS, 95<sup>A</sup> SOUTHWARK ST., LONDON, S.E.  
AND 128 HOPE STREET, GLASGOW.**



Telephone No. 2477.

Telegraphic Address:  
"IODINE-LONDON."

## Fletcher, Fletcher &amp; Stevenson



21 MINCING LANE,



LONDON, E.C.

*Works at HOLLOWAY, N.*

MANUFACTURERS OF PURE PHARMACEUTICAL CHEMICALS.

FOR ICE COMPANIES, ETC.

ACID SULPHURIC

Best Concentrated, and from  
Sulphur only, *not* "pyrites."

ANHYDROUS AMMONIA

Packed in steel drums of  
about 150 lbs.

ETHER RECTIFIED

All strengths in drums.  
Pure and up to strength.

CHLORIDE OF CALCIUM

Very low rates given now.

MACHINERY AND COMPLETE PLANT

Sent out for Manufacturers, with Latest Telegram Code.

.....

All requirements for the Mineral Water Trade, Ice Companies, &c.—Liquid Ammonia, Ether, Whiting, Fruit Essences, Soluble Essences, Lemon, Ginger Ale, &c., &c., of guaranteed purity and flavour, and at the closest possible prices.

.....

SPECIAL QUOTATIONS given to Foreign Buyers, either F.O.B. London or C.I.F. any port in the World.

LETCHFORD'S BUILDINGS, THREE COLT LANE,

BETHNAL GREEN, LONDON, E.,

December 5th, 1890.

## TERMS OF SUPPLY.

THE SANITAS COMPANY (LIMITED) beg to give notice that in consequence of advances in the prices of bottles, materials, and labour, on and after January 1st, 1891, the Trade Rates of all their 6d. and 1s. preparations, now supplied at 4s. and 8s. per dozen, will be raised to 4s. 6d. and 9s. per dozen respectively, the rates of discount to retail and wholesale buyers remaining as heretofore.

C. T. KINGZETT,

*Managing Director.*

N.B.—Chemists and Druggists are requested to communicate with the Company if (1) they would like an Opal Show Tablet fixed on their shop window, or to be supplied in a frame; (2) if they require Show Cards, Pamphlets, Handbills, &c., naming a wholesale house for enclosure; or (3) if they issue a Retail Price List or Almanack, and would like the Company to advertise in it.

THE SANITAS COMPANY (LIMITED) are the Sole Manufacturers of the "Sanitas" Disinfectants, Toilet and Veterinary Preparations, "Sanitas" Oil for Inhalations and Fumigations, "Kingzett's Mercuric Bactericide" for use by Surgeons, and "Kingzett's Preserved Peroxide of Hydrogen" for Bleaching purposes, &c.



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.....

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LETCHFORD'S BUILDINGS, THREE COLT LANE,

BETHNAL GREEN, LONDON, E.,

December 3th, 1890.

## TERMS OF SUPPLY.

THE SANITAS COMPANY (LIMITED) beg to give notice that in consequence of advances in the prices of bottles, materials, and labour, on and after January 1st, 1891, the Trade Rates of all their 6d. and 1s. preparations, now supplied at 4s. and 8s. per dozen, will be raised to 4s. 6d. and 9s. per dozen respectively, the rates of discount to retail and wholesale buyers remaining as heretofore.

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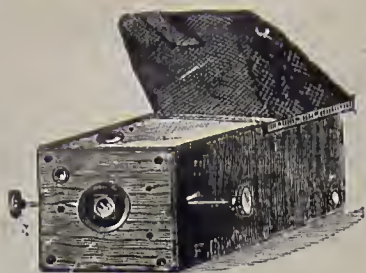
**THE LATEST NOVELTY.**

Fig. 13.

**PORTABLE HAND CAMERA,**

In polished walnut wood, size  $2\frac{3}{4}$  by  $3\frac{1}{4}$  by  $5\frac{1}{4}$  inches, with rapid wide angle lens and improved view finder, will take a series of twelve instantaneous views  $3\frac{1}{2}$  by  $2\frac{3}{4}$  without focussing or replenishing; total weight 19 ounces. Portraits, groups, and views can be taken moving or standing; price complete, with lens, shutter, view finder, and 12 metal plate-holders in cloth-bound case (Fig. 13), £1 5s.

Specially prepared extra rapid sensitized plates for above, 12s. per gross. Printed instructions with each camera.

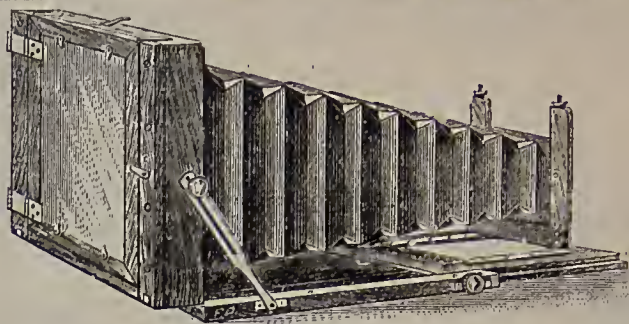


Fig. 14.

**DARTON'S IMPROVED DOUBLE EXTENSION LONG FOCUS CAMERA.**

Of polished mahogany, with 3 double backs, rack, and pinion adjustment swing back and front, no loose parts, light, strong, and durable (Fig. 14).

$\frac{1}{2}$	1	10 by 8 Plate.
75s.	95s.	120s.



Fig. 16.

**DARTON'S STANDARD CLINICAL THERMOMETER.**

Ordinary contracted, per dozen, 91s. Ditto, Imperishable Index, impossible to throw out of order, and therefore specially suited for export, in German Silver or Vulcanite, cases (Fig. 3, Block 16), per dozen, 30s.; Rapid Action, ditto, 60 second, 38s. Lens, front ditto, magnified bore (Fig. 1), 54s per dozen. Rapid Action, ditto (Fig. 2), 68s per dozen. Kew Certificates for ditto, 12s. per dozen extra.

*Illustrated Trade Lists of general Optical Goods, Meteorological Apparatus, Electric Bells, Batteries, Wires, &c., forwarded post free to any part of the World on receipt of Trade Card.*

**F. DARTON & CO.,** Wholesale Opticians, 45 St. John St., West Smithfield, LONDON, E.C.

**CHEMISTS' SHOP FITTINGS, SHOW CASES, &c.**

FOR BEST WORK AT LOW PRICES SEND TO

**G. TREBLE & CO., 2 KINGSLAND GREEN, DALSTON, LONDON.**

PLANS AND ESTIMATES FREE. SPECIAL ATTENTION PAID TO EXPORT ORDERS.

**GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.****JOHN OAKEY & SONS,**

MANUFACTURERS OF

Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels  
Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish  
Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

**OAKEY'S WELLINGTON KNIFE POLISH**

Prepared expressly for Oakey's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines,  
Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

**OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,**

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

**OAKEY'S "POLYBRILLIANT" (REGISTERED).**

A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Paste  
Thus 1d., 2d., 3d., and 6d. each.

**WELLINGTON BLOCK BLACK LEAD,**

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

**WELLINGTON EMERY & BLACK LEAD MILLS,** Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883, Gold Medal, Crystal Palace, 1884.



# The Chemist and Druggist

## SUPPLEMENT

Businesses Wanted.  
Businesses for Disposal.  
Premises to Let.  
Auction Sales.

SATURDAY, DEC. 13, 1890.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

### CHEMISTS' TRANSFERS.

**MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.**

**CHEMISTS' TRANSFER AGENTS,**

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid any liability of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON, W.—Very old-established good-class Business, situated in a good business locality; returns nearly £900 yearly (under manager), have been much larger; good proprietary articles, with very good local sales; residence good; well-fitted shop; price £750.

2.—LONDON, W.—Old-established Business, situated in a main thoroughfare; returns over £400 yearly; very profitable; can easily be doubled, having been managed by assistants; comfortable house; rent moderate; price £300.

3.—LONDON, S.W.—Main road; old-established; large and well-fitted shop; returns £500 yearly; capital house with large garden; rent £70; price about one year's purchase.

4.—LONDON, N.W.—Thickly-populated locality; old-established Business; returns £900 yearly, nearly all cash; well-fitted shop; good stock; price required £750.

5.—LONDON, N.W.—Good opening for Dentistry; Retail and Dispensing of good class; returns £500; well-fitted shop; good stock; six-roomed house, with garden; about £400.

6.—SURREY.—Large town; old-established Business, Retail and Dispensing; returns about £800 yearly, all profitable business; house contains 8 rooms and shop; garden and conservatory; terms, small premium and valuation of stock and fixtures.

7.—ESSEX.—Good-sized business town; handsomely-fitted shop; Retail and Dispensing Business; returns over £600; very good house (corner), all in good condition; an immediate purchaser will be dealt with on liberal terms.

8.—CATHEDRAL TOWN (Home County).—Mixed Business; returns about £2,000 yearly; business capable of being much increased; well-fitted shop and good stock; about £1,000 required.

9.—NORTH DEVON.—Country town; good-class Dispensing and Retail Business; returns £450 yearly, good house; satisfactory reasons for selling; opposition slight; rent £20; about £300 required.

10.—HOME COUNTY.—Good-class Retail and Dispensing Business, situated in a large town; commanding shop and good stock; returns £700 yearly; good house; low rental; held on lease; about £500 required.

11.—WITHIN EASY DISTANCE OF LONDON.—Good-class Retail and Dispensing Business, held by vendor many years; returns nearly £800; good house and garden; about £750 required, or valuation terms can be arranged.

12.—INLAND WATERING-PLACE.—Retail and Dispensing; returns £500 yearly; house contains 6 rooms and bath-room; rent very moderate; price about £500.

13.—CATHEDRAL TOWN (West).—Handsomely-fitted shop and good stock; returns nearly £700 yearly; position undeniably good; investment worth the attention of a pushing man; price £550; full investigation permitted.

14.—PROVINCIAL TOWN.—Wholesale and Retail; very old-established Business; returns over £5,000; applicants will oblige by giving London reference; the investment will require £4,000 or thereabout.

Particulars of any of the above will be furnished on application.

**N.B.—NO CHARGE TO PURCHASERS.**

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

**SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.**

**MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.**

**ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.**

### TO LET.

**CHEMIST and Druggist (Retail and Dispensing).—A shut-up Chemist Shop to let at low rent, with use of fixtures. Address, by letter, to C. T., care of Messrs. Willows, Francis & Butler, 101 High Holborn, W.C.**

**BIRMINGHAM.**—First-class Shop and Dwelling-house, on a busy main thoroughfare, surrounded by a densely-populated neighbourhood and leading to the wealthy and fashionable suburb of Edgbaston; a Chemist has occupied the premises for 30 years; no fixtures, stock or goodwill to pay for; alterations made if required; rent £70: unusual opportunity. Apply immediately, Marriott's Estate Office, 21A Judge Street, Birmingham.

### PARTNERSHIPS.

**PARTNERSHIP or Agency, &c.**—A Commercial Traveller, having moderate capital, and a large connection among the best country chemists, is open to receive proposals. Address, "Partag," Deacons' Advertising Offices, Leadenhall Street, E.C.

**PARTNERSHIP.**—Advertiser, of thorough business experience, is open to negotiate for a Partnership in a Wholesale, Manufacturing, or good Dispensing Firm having Specialties. F. I. O., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

### APPRENTICESHIP.

**APPRENTICE** wanted for a good-class business; comfortable home; time for recreation; close at 1 on Thursdays; premium required. Apply to M'Kee, Chemist, Tunstall, Staffs.

### FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**FOR SALE.**—Bargains in Shop Fittings.—12-foot range mahogany-fronted drawers, cut-glass knobs, and bevelled plate-glass labels, £9; 12-foot range polished pine ditto, £6 12s.; one 8-foot range drawers with glass labels and knobs, £5; one second-hand mahogany dispensing screen, 7 feet long, £3; one ditto, 4 feet long, £2; one ditto, 3 feet 6 inches long, mirror backs, 50s.; one second-hand tooth-brush case, 15s.; one ditto, 2 feet bent-glass counter-case, 21s.; 1 ditto, 10 feet, 60s.; desk and case, 55s.; 6-ft. dispensing screen, mirror centre, £5 10s.; ditto, new design, £7 10s.; 24 3-lb. blue jars, gold-labelled, 2s. each; 18-gall. carboy with cut stopper, 17s. 6d.; 3 3-gall. ditto, 7s. 6d. each; 2, 6, and 8 gall. carboys, 6s., 14s., and 18s. each; 19-ft. second-hand mahogany-top counter, fitted with drawers, 5l. Illustrated list post free. R. Tomlinson & Sons, Medical Fitters and Valuers, Bond Street, Birmingham.



## F. J. BRETT,

VALUER, LEICESTER,  
60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

**BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.**

**LONDON, N.W.**—Profitable Retail and Homœopathic; returns £500; profits large; plenty of scope for increase; price £450.

**MIDLANDS**—Retail and Wholesale; returns over £2,000; valuation of stock, about £800 or £900; landlord will rent fixtures.

**ESSEX.**—Unopposed Retail, with Gilbey's agency; returns £550; good house and garden; rent £22; price £250.

**KENT.**—Good-class Retail, Dispensing, and own Proprietaries; returns £850; rent low, lease; price £750.

**WILTS.**—Light Retail and Dispensing; returns £500; price £350.

**LANCS.**—Seaside; returns as branch £300; valuation about £200.

**STAFFS.**—Profitable Retail; returns £500; rent £25; price £250.

## MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,  
30 JEWRY STREET, ALDGATE, E.C.  
Established 1870.

**VALUATIONS and TRANSFERS** conducted in any part of the United Kingdom. Twenty years' practical experience. Terms, which are strictly moderate, may be had on application.

**NO CHARGE TO PURCHASERS.**

**MIDDLESEX** (8 miles out N.W.).—Light Retail, Dispensing, and Prescribing; returns £7 weekly under junior, principal would do double; shop well fitted and stocked; good house, large garden stocked with fruit trees; price £200, less than valuation.

**SOUTH COAST** (Fashionable resort).—Retail and Dispensing Business; solely under management; returns £550, good profits; low rent; elegantly-fitted shop; price £400 or valuation; half can remain.

**YORKSHIRE**—Light Retail, Dispensing and Prescribing; same hands 23 years; owner retiring; returns £1,050; net profit £400; low rent; good introduction; every investigation allowed; price £750.

**WEST OF ENGLAND.**—High-class Dispensing Business, returning £1,000 at good prices; elegantly fitted shop, well stocked; large house; price £900, or partner taken with £450.

**SURREY.**—Good-class Retail and Dispensing Business; returning £750; good profits; low rent; good house and garden; shop is handsomely fitted and well stocked; price £650, or valuation.

**HANTS.**—Unopposed Retail, Dispensing, and Prescribing Business, in very healthy district, few miles from the coast; returns £650, steadily increasing; convenient house, garden; price £450 or offer.

**HOME COUNTY** (25 miles from London).—Unopposed Retail and Prescribing Business; returns £850, net profit £250; same hands 20 years, retiring; price £450; good house and garden.

**KENT.**—Light Retail and Dispensing Business, in principal street of important town; returns £700; good house; low rent; handsome shop; price £450, about value of stock and fixtures.

**LONDON, N.W.** (Death vacancy).—Retail and Dispensing Business; under management returns £1,000; net profits £400; excellent house; price £750, or partner taken with £450.

**LONDON, S.E.**—Retail and Prescribing Business; returns £500 by manager; quite unopposed; good house; low rent; price £250.

**LONDON, N.**—Retail, Dispensing, and Prescribing Business; returns £400; good position; nice house and garden; price £175.

Particulars of any of the above sent free on application.

Other Businesses, Town and Country, from £100 to £5,000.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

## BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**CHEMIST'S** Business at Peckham; well-fitted shop and dwelling; established over 20 years; rent £28; premium £100. Apply to Mr. Stimson, Auctioneer, 2 New Kent Road, S.E. (opposite the Elephant and Castle).

**BUSINESS** for Disposal; returns between £500 and £600; Family and Dispensing; established 30 years; proprietor going abroad; must be sold at once. For particulars, apply to A., 14 Ragland Lane, Belsize Park, N.W.

**SMALL** Dispensing Business for Sale in S.W. suburb; about £250 required; beautifully fitted and comfortable house and garden; suitable for gentleman with small income, or for dental opening. Apply to Mr. Cave, 24 Russell Street, Covent Garden, W.C.

**FOR** immediate Sale, in consequence of death, a General Chemist's and Druggist's Business, at Walsfleet, Lincolnshire; no goodwill; inventory; small lease of premises can be granted; a good opening for a pushing young man. Apply, J. H. Topliss, Mercer Row, Louth, Lincolnshire.

## Mr. G. B. CROCKER,

Trade Valuer, Transfer Agent, & Accountant,  
15 WALBROOK, E.C.

**MIDLANDS.**—An old-established Retail and Dispensing, with local Wholesale trade, returning £1,800 yearly; to effect an early sale valuation of stock and fixtures will be accepted.

**BURKS.**—Good-class Country trade; returns £850; price £500; good house and garden; long lease, at a low rent.

**ESSEX.**—An unopposed Village Business; returns £400; rent £20; price £250; and under the management of a junior.

**WEST OF ENGLAND.**—Good-class Retail and Dispensing; returns £450; price £450; plenty of scope to do double the trade.

**NOTTS.**—Mixed Retail, Dispensing, and Prescribing trade; returns £1,100; price £700, or valuation; terms can be arranged.

**LONDON, W.**—Good-class Suburban Business; returns over £1,000; price £800; large house; handsome pharmacy; specially recommended as a reliable investment.

**LONDON, S.**—Good-class Dispensing trade; returns £1,200; price £1,100; very profitable; long lease; good house and garden.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

## BUSINESSES FOR DISPOSAL—Continued.

**FOR** disposal, old-established Business; cause, death of late proprietor. Apply, by letter, to Mrs. Saul, The Laurels, Beccles, Suffolk.

**KENT.**—Near town; good-class Retail and Dispensing Business, in a busy main road, returning £12 per week; very profitable, and increasing; satisfactory reasons for selling; price only £350, or a reasonable offer entertained. "Keat," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**SUFFOLK** (Border of).—Unopposed Retail and Prescribing Business, in a well-populated locality, with no opposition for some miles; low rent; good 8-roomed house, well stocked garden; same hands many years; returns £550; price £250. Address, "Coea," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**VALUATION** or reasonable offer, as vendor must go abroad; old-established corner in prosperous North Staffordshire town; net profits nearly £300 a year under bad management; good house, large stock and plenty of warehouse-room; thoroughly genuine. "Chemist," care of 47 Chester Street, Hulme, Manchester.

**GENUINE** little Pharmacy, on the main road, 4 miles from Cardiff and Barry, centre of lovely scenery, close to sea and docks, one minute from two stations; nearly £3 per week proof prescribing; no cutting or opposition; a large shipping trade may be cultivated; unlimited opportunity for a good Prescriber and Tooth Extractor; advertiser cannot pay required attention, having taken larger concern, consents every investigation. Pearsoa, Chemist, Caroline Street, Cardiff.

**FOR** sale, early in the new year, a Mixed Business, doing a good ready-money trade in one of the largest towns on the South Coast; death of the proprietor sole cause of sale; weekly takings about £12 under a Junior; price for stock, fixtures, and a 7-years lease, would not exceed £200; this would be a good opportunity for a man wishing to go into business with a small capital, as part of the purchase-money could remain if good security were given. Address, J. M., 93 Stansted Road, Southsea, Hants.

**£200 CASH.**—A genuine old-established Business to be sold at once in the N.E. of London, owing to dissolution of partnership, splendid corner position in an improving neighbourhood; receipts under management over £400 (could be doubled), profits £250; well stocked, handsome pharmacy; fittings, &c., worth more than asked; large house and garden, side entrance; rent £65, £33 let off, 16 years' lease on exceptional terms; magnificent opening for Dentistry, almost unopposed; as the above is the lowest price no lower offer can be entertained. Apply, first by letter to "Peart," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## BUSINESS WANTED.

**LONDON** or Suburban district.—Qualified Chemist, of good address and appearance, seeks engagement after Christmas in good-class business, with a view to an early purchase of the same; net profit about £400 per annum; *cond fide* sale; no agents. James Purcell, Chemist, Acacia Villa, 223 Burrage Road, Plumstead, Kent.

## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**A**N Assistant, of gentlemanly address and good experience; about 23 W. G. Blackham, 675 Holloway Road, Upper Holloway, N.

**A** JUNIOR, about 18 or 20 years of age, for Light Retail and Agricultural business. Apply, stating salary, reference, age, &c., also enclose photo, and state when at liberty, to Geo. Betts, Ph. Ch., 25 The Walk Norwich.



**WANTED**, Junior or Improver for Light Dispensing trade. Apply, stating age, salary, &c., J. Tirrell, Chemist, Hauley.

**JUNIOR** Assistant wanted immediately after Xmas. Apply, stating age, salary, and references, to E. Smith, West Street Post Office, Horsham.

**WANTED**, a qualified Assistant to take charge of a business in suburbs; salary and commission. "Statim," 84 Lansanne Road, Hornsey, London, N.

**WANTED** at once, a qualified Assistant; one recently passed preferred. References, salary required, outdoors, to J. J. Nicholson & Co., Chemists, Sunderland.

**QUALIFIED** Assistant, for January 1, accustomed to good Retail and Dispensing. Apply, stating age, height, salary required, with references, to J. Williams, Victoria Road, Aldershot.

**WANTED**, Junior (indoors) for Branch Cash business; must be well up in Counter work; January 1. State full particulars in first communication, C. T. M., 111 Blatchington Road, Brighton.

**COUNTRY** Traveller required by a Wholesale Drug firm; to a man of ability and experience a good commencing salary will be paid. Apply, with full particulars, to "Kola," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED** at once, competent qualified Assistant; outdoors; pushing and of good appearance; no one need apply whose references will not bear the strictest investigation. Address, X., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**SURGEONS' Wholesale**—Wanted, a competent man at Wet Counter; must have had experience in a wholesale house; with Minor qualification preferred. Letters to be addressed to T. V., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**BRITISH GUIANA**.—Junior Assistant required; 3 years' engagement at progressive salary; an Associate of the Pharmaceutical Society preferred. Apply, by letter, to O. S., care of Hodgkinson, Treseher & Clarke, 101 Whitecross Street, E.C.

**AN** active and reliable Assistant in Light Retail and Dispensing business, where only one is kept; applicants requested to enclose photograph and references, also state age, height, and salary required. Mr. Badcock, Chemist, Lymington, Hants.

**ASSISTANT** wanted for a Homœopathic Pharmacy in Tasmania, about 21 to 24 years of age; healthy climate; liberal terms to suitable man. Apply first by letter, with full particulars, to Messrs. E. Gould & Son, 59 Moorgate Street, London, E.C.

**WANTED**, after Christmas, Junior Assistant, aged about 23, in good-class Country business; must be a reliable Dispenser. Apply, stating full particulars as to salary, experience, &c., and enclose photo (returned), to Chalmers & Son, Newport, Salop.

**WANTED**, trustworthy Assistant to take charge of Branch in suburb; must be a good Counterman and Prescriber, and have satisfactory references. Write, giving full particulars, to "Locin," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED** immediately, an active Assistant, aged 20 to 23, of good character, accustomed to a good-class country trade; hours easy. Apply, stating age, height, salary required (indoors), experience, and references, enclosing photo, to E. Jenkins, Chemist, Faversham.

**QUALIFIED** Junior Assistant wanted, after Christmas, for good-class Retail and Dispensing business; three kept, and apprentice; references must bear strict investigation. State age, height, salary required, and photo, if possible, to W. Wright, Chelmsford.

**WANTED**, early in January, for a good Dispensing business in the neighbourhood of London, a qualified Senior Dispenser; a good progressive salary is offered to a suitable gentleman. Apply by letter, enclosing photo, to X., care of Meggeson & Co., Upper Thames Street, E.C.

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**WANTED**, Assistant in Mixed Business for 3 months, commencing end of December. W. Harvey, Ford Street, Derby.

**WANTED**, an energetic Junior; outdoors. State full particulars, giving reference, to Lewis, Chemist, Preston, Lancashire.

**DIRECT** Representatives wanted. Apply personally between 10 and 12, The Liquor Carnis Company, Ltd., 60 Holborn Viaduct, E.C.

**WANTED**, a pushing young man to manage small Branch; married; not objected to. Apply, with full particulars, to John Smithson, Brighton.

**JUNIOR** Assistant, at once for Drug, Oil, and Colour business; indoors. Apply, stating age, salary required, and references, to Holloway Bros., Walsall.

**IMMEDIATELY**, Junior Assistant (indoors), accustomed to Agricultural trade; must be well up in Dispensing and Retail. Bishop, Chemist, Grantham.

**BY** first week in January, a good Junior, about 19 or 20; indoors. Applications, with full particulars, reference, and carte, to S., 64 High Street, Stroud, Glos.

**QUALIFIED** Assistant, aged about 24, accustomed to good-class Dispensing and Retail; also vacancy for Junior. Apply, O. A. Smith, Chemist, Ventnor, I.W.

**A WIDOW** Lady requires a Manager for business in a country town; indoors; abstainer preferred. Usual particulars, in first instance, to H. E. Young, Chemist, High Wycombe.

**AFTER** Christmas. Junior Assistant, accustomed to first-class Dispensing. Apply, with full particulars (enclose photo if convenient), to T. Buxton, Chemist, Clifton, Bristol.

**WANTED**, early in January, a competent Dispenser, qualified, with experience in first-class dispensing; not under 23. Apply, B. John (late Davies & Hillier), 15 Old Bond Street, Bath.

**JUNIOR** Assistant, aged 19 to 21, wanted last week December; fair Counterman and Dispenser; hours light, with home comforts. Apply, stating experience, salary required, &c., to J. Scott, Bodmin, Cornwall.

**WHOLESALE**; wet department; second counter-man; applicants state age, salary, and references; experience in wholesale is necessary. Address, "A. Z." Clay, Dod & Co., 52 St. Anne Street, Liverpool.

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**AT ONCE**, Junior (indoors) for Stock and Counter (Branch, N.W.); must have good references. To save time, state full particulars in application, Lewis' Drug Stores, 22 & 24 Great Portland Street, W. Also, early in January, a vacancy for a smart, experienced Counterman.

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**WANTED**, immediately, for a few weeks, a Junior; about 22 years of age; good character indispensable; Minor qualification; must be a good Dispenser, and accustomed to a country business; no groceries, paints, &c. Apply, with usual particulars, to H. J. Church, Pharmaceutical Chemist, Cambridge.

**WANTED**, early in January, good Junior Assistant, for Mixed business; indoors; unexceptionable references required; good Counterman and Dispenser; Protestant and abstainer preferred. State experience, age, height, and salary required, with photo (to be returned), to J. B., 32 Victoria Road, Wigan.

**GENTLEMANLY** Junior Assistant wanted for Homœopathic and Dispensing Business about Christmas; indoors; good references; abstainer; previous experience of Homœopathy not absolutely essential. Address, stating full particulars, salary, experience, and photo, to G., 18 Leyland Road, Southport.

**AFTER** Christmas, an Assistant for a good-class country Retail and Dispensing business; must be accustomed to an Agricultural trade; age about 22; hours 8 to 7, 10 on Saturdays; duty two evenings weekly. Apply, with usual particulars, stating salary and enclosing carte, to J. L. Davies, Chemist, Hay, R.S.O.

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Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

## Shop Fittings.

Fifty-two French-polished pine drawers, five lockers, centre cupboard, shelving complete, 11 feet long; 9 high, new. 6/24.

Entire fittings of a chemist's shop, together or separate, great bargains; counters, drawers, dispensing-screens; bottles, &c. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

## Miscellaneous.

What offers? Southall's chemical apparatus for Major students, quite new. 6/8

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Distilled glycerine in 56-lb. tins, 6½d. lb., tins free; petroleum jelly or vaselline, in 28 and 56 lb. tins, tins charged and allowed for in full, 4½d. lb. Johnson, Chemist, Godalming.

Splendid mahogany materia medica cabinet for Major course, 190 specimens, by Evans, Lescher & Co.; what offers? Woolham, High Street, Whittonch. Salop.

John lots of mineral-water and other bottles 100 gross split lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 90/100.

Official press with type and ornamental borderings, cost 8l. 10s, excellent for labels and will print handbills 6 in. by 3; Dobson's black-leg drinks; Master & Hodgson's Liqueur; what offers? cash or exchange. Carpenter, Pharmacy, Burnham, Somerset.

## WANTED.

1885 British Pharmacopœia, in good condition. 3/4.

Fireproof safe, second-hand, must be in good condition. 3/34.

Cheap bottles, drawers, jars, cases, &c. for shop 16 ft. by 18 ft. Pick, Chemist, Gateshead.

Mahogany sponge-case, as Maw's fig. A43, must be good and perfect; also counter-case, as A3. Send every particular to Kemp, Manchester.

Shop-stands, pill-jars, desk and case, outside lamp, sponge-case, toothbrush-case. Enil particulars, Munro, 9 Market Place, Wednesbury, Staffs.

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Precipitated in Powder ... .. Melting Point 156-6 C.  
Crystals ... .. " " 157° C.  
Physiologically Pure ... .. " " 157° C.

SALICYLATE OF SODIUM—Absolutely Pure, and Physiologically Pure.

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N.B.—Stock kept in London.

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MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

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SURGICAL **PLASTERS** IN RUBBER  
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ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

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We are now preparing Mustard Plasters after an entirely New Process.

Mustard Plasters have always given some trouble to both Physician and Pharmacist, by reason of decomposition from age, thus becoming inert. After years of careful manipulation we have been able to overcome this difficulty, and the Mustard Plasters prepared by us are guaranteed in every way.

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### NEW PROCESS MUSTARD PLASTER,

A comparison of which with any other brand will show them to be much superior.

THEY WILL KEEP BETTER.

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THEY ARE STRONGER THAN ANY OTHER MAKE.

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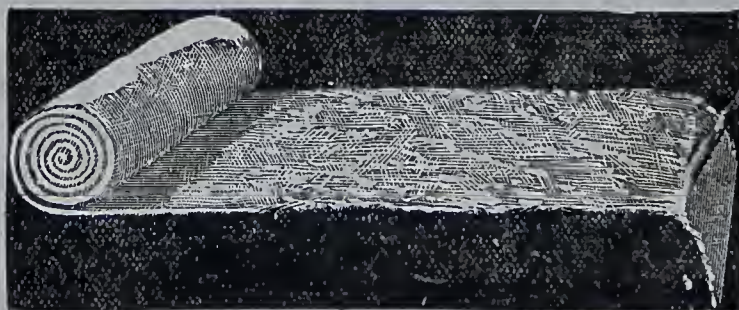
FIRST.—By preparing the mass in a manner calculated to promote more rapid absorption of the incorporated drug.

SECOND.—By employing a more reliable extract of the drug than commonly used.

THIRD.—By the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

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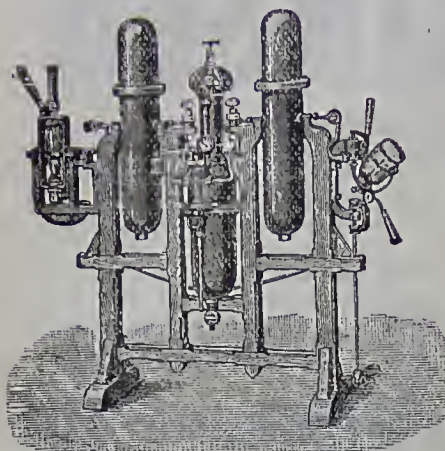
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INDISPENSABLE TO CHEMISTS.  
**THE ONLY PRACTICAL SODA WATER MACHINE.**  
Self-working by Chemical Action. No Skilled Labour.  
NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.  
*Produces the Purest Aërated Water made.*

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

COUNTY LABORATORY, 30 BROWNLOW STREET, LIVERPOOL, October, 1889.

I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way.  
J. CAMPBELL BROWN, D.S.O.

CHEMICAL LABORATORY, 20 ALBERT GATE, MANCHESTER, 21st August, 1889.

GENTLEMEN,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescott Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda: the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours,  
O. ESTOUCOURT, F.I.C., F.I.

Messrs. A. LOZÉ, & Co., LIMITED.

DITTON, 10th April, 1890.

Dear Mr. Lozé.—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

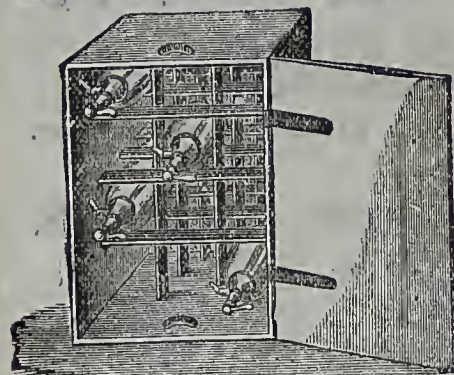
The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly,  
ROBT. J. GOW, F.O.S.

**JOHN OWEN, JUNIOR,**

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Cases of every description for Home use  
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THE FAMOUS NATURAL MINERAL WATER.

For  
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Rheumatism.



For  
Kidney and  
Bladder Diseases.

TO BE OBTAINED THROUGH ALL WHOLESALE HOUSES.

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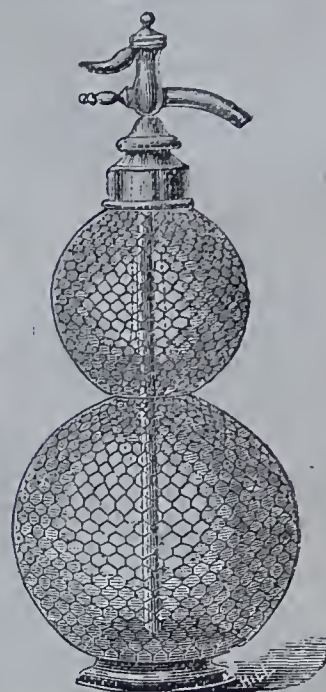
SOLE AGENTS, **W. SCHACHT & CO., 26 Finsbury Pavement, LONDON, E.C.**



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All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving our works.



## PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

## SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.

## ORANGE & LEMON PEELS (DRIED AND FRESH).

This Season's Peel will soon be ready, and we shall be prepared to supply Fresh Orange and Lemon Peels specially cut, free from pith, and in small shreds (about 1" x 1/4"), in a condition most favourable for the manufacture of the Official Tinctures.

Samples (as soon as in hand) will be sent free on application.

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The Cigarettes of the following Firms at List Prices:—Goodwin, Allen & Ginter, Kinney, Unke, Kimball, Au Bon Pneu, Wills, Player, Lambert & Butler, Cope, and the leading Egyptian and Turkish Houses.

**BRITISH CIGARS** from 4s. to 20s. per 100. All carefully selected and well matured. The largest and most varied stock in the United Kingdom to select from.

Irish Roll, Pigtail, Nailrod, Target, Cake, Plug, and all other hard Tobaccos: also Pipes, Shags, Virginias, Cut Cavendish, and every description of plain and fancy Cut Tobaccos of standard quality at lowest prices.

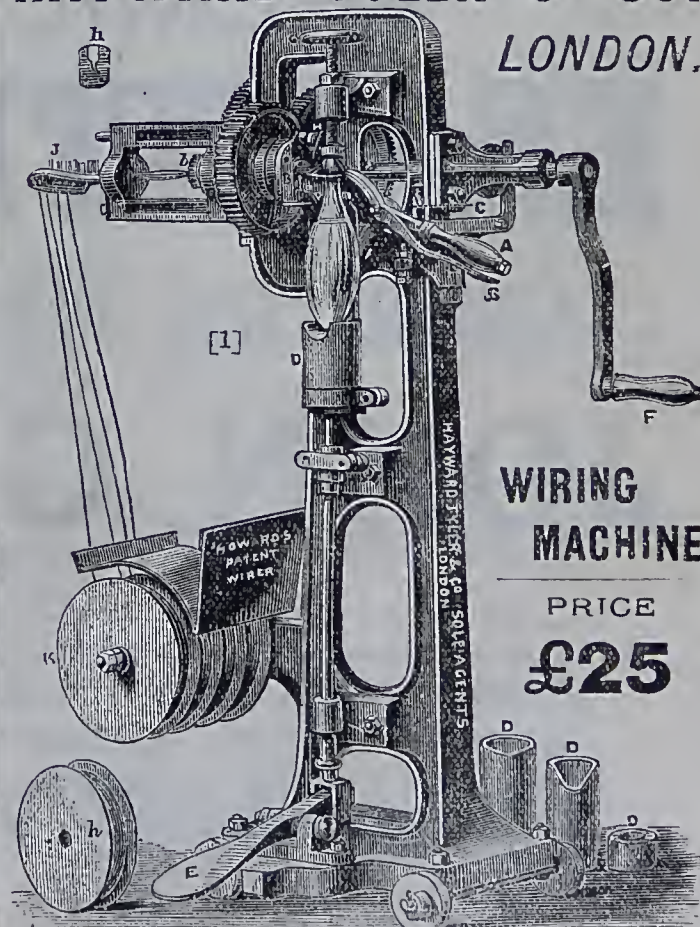
Tobacconists' Fancy Goods and Smokers' Sundries of every description at current rates.

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SEND FOR DETAILED PRICE LISTS.

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## WIRING MACHINE

PRICE

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**SOLUBLE ESSENCES**  
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ARE GUARANTEED TO BE THE FINEST IN THE MARKET

ESSENCES OF  
GINGER  
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HOP ALE  
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*Besides GOLD & SILVER Medals, these Essences have obtained the  
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*Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS,  
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Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

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AND COMPARE WITH OTHER MAKERS.

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The Largest Syphon Fillers in the United Kingdom.

**SODA.** Brilliant, Pungent, and Sparkling.

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**SELTZER.** Pure and Delicious Table Water.

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**LEMONADE.** Pure fruity flavour of ripe Lemons.

**PURITY.** Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

**ELEGANT SYPHONS.** Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

**LOWEST PRICES** for Water, both in Syphons and Bottles. Write for Price List.

**PROMPT DELIVERY** by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

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*THE LANCET*:—"About one-third of the whole dry matter consists of true peptone, and another third of albumose. A variety of albumen uncoagulated by heat."—July 12th, 1890.

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## LIQUID STERILISED PEPTONE OF MEAT.

Considerably more nutritive than beef, and more palatable than home-made beef-tea; elegant in appearance. No digestive function need, or can, be exercised, all having been fitted for immediate absorption. Life can be supported indefinitely upon it, and it does not clog upon the most fastidious and delicate palate. It contains all the stimulative extractives and the mineral salts in due proportion, as they exist in beef. 2s. per bottle, ready for use.

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**PULVIS FERRI PEPTONATIS** (Denaeyer), 4s. per ounce bottle, a beautiful reddish-grey powder, soluble in water, compatible with all alkaline or neutral medicines.

**TRUE PEPTONATE OF IRON** is the produce of our laboratory alone, and is our discovery. The salt is precipitated from its solution in presence of the acid gastric juice, redissolved and absorbed with great rapidity in the alkaline medium met with in the duodenum, so that it does not interfere with digestion, and it is not chemically altered by the juices of the alimentary canal. Should be administered before meals, and its flavour requires no disguise.

PAMPHLETS AND SAMPLES FREE TO MEDICAL MEN.

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In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{2}$ ,  $\frac{1}{4}$ , 1 lb. Tins only.



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Write for List of Specialities.

**"LA JOYA"** This First-Class Brand of English-Made Cigars  
IS MANUFACTURED SOLELY BY

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TOBACCO, CIGAR, SNUFF, AND CIGARETTE MANUFACTURERS,

Who will be pleased to send a sample FREE to any address in the United Kingdom on application.

A box of 25 (as in margin) for 5/-, or a box of 50 for 9/-, on receipt of Postal Order or Stamps, carriage paid.

The only Manufacturers of the CELEBRATED "ROYAL CHARTER" TOBACCO.

WHOLESALE PRICE LISTS TO RETAILERS ON APPLICATION.

**542 KINGSLAND ROAD, LONDON, N.E.** ESTABLISHED 1858.





# ALBUMINOIDS IN MEAT ESSENCES.

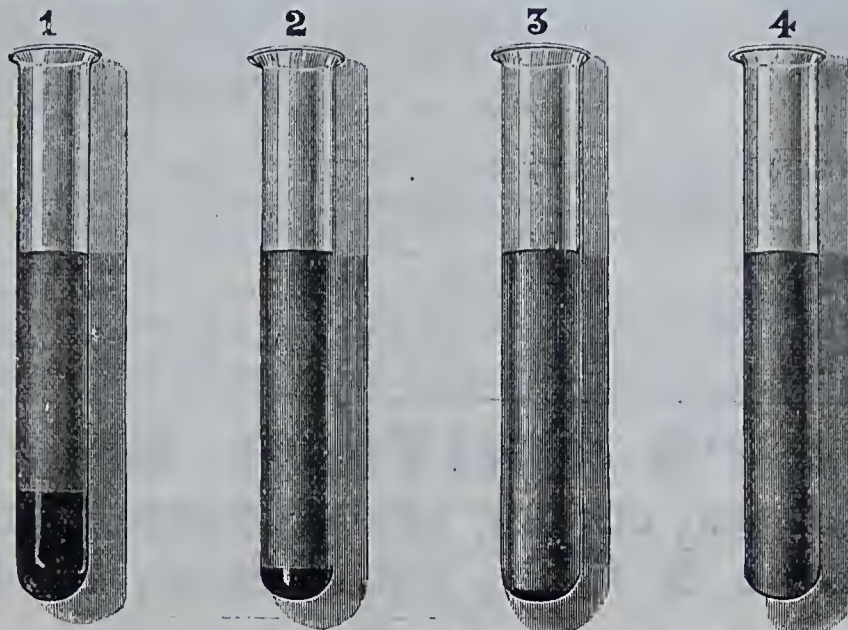
\* PROFESSOR J. ALFRED WANKLYN, M.R.C.S. Lond., Professor of Chemistry, Corresponding Member of the Royal Bavarian Academy of Sciences, &c., &c.

With the object of demonstrating the comparative amount of natural unchanged albuminoids contained in some of the chief preparations of concentrated fluid meat essences now in use, the following simple method was adopted, and which the appended illustrations faithfully demonstrate.

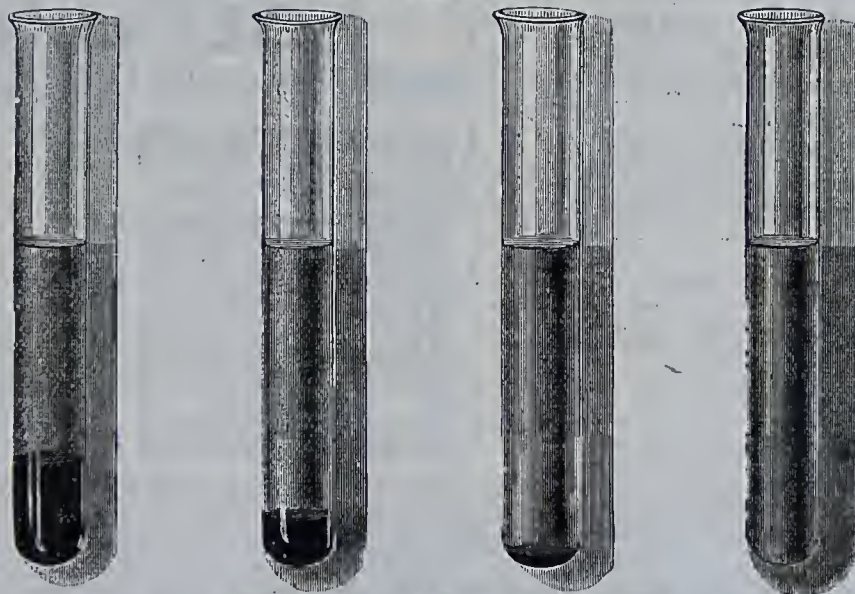
No. 1 is Caffyn's Liquor Carnis; 2, 3 and 4 are other well-known preparations.

CAFFYN'S  
LIQUOR CARNIS.

HEAT ALONE.




The above tubes represent thirty grains of the respective preparations diluted with ninety minims of distilled water, boiled for three minutes, and allowed to stand for six hours.



HEAT & NITRIC ACID.

The four lower tubes represent similar materials and proportions, boiled for three minutes, after the addition of ten minims of pure nitric acid. From this demonstration it is evident that CAFFYN'S LIQUOR CARNIS contains a much greater proportion of pure, unchanged albuminoids than any of the other preparations; 3 and 4 giving almost negative results, the process of manufacture having entirely changed or destroyed them.

\* These experiments were conducted originally by a well-known Physiologist in London, and formed the subject of an article in the Hospital Gazette.

 Retail—Three-ounce Bottle, 2s.; Six-ounce, 3s. 6d.

Pharmacists willing to distribute specimen bottles and literature to Medical Men will oblige by intimating the same to us and sending List of Medicos, with addresses.

## THE LIQUOR CARNIS CO., LTD.

50 HOLBORN VIADUCT, LONDON, E.C.





## ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

### REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).  
December 15, 1888.

Introduced 1855.

### ROBINSON'S CONCENTRATED WATERS.

Introduced 1855.

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical Impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 5/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 8/ "	" Rosæ Virgin. " 10/6 "
" Carui " 4/ "	" Flor. Sambuel " 8/6 "	" Virid. " 4/ "	

The above are put up in Bottles of 4 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.  
From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Ag. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice. [1]  
Wholesale HEARON & CO., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.  
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER

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ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.  
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BROKEN-LEAF TEA, 1s. 6d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

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AGENTS APPOINTED, where unrepresented, throughout the United Kingdom. Prospectus and Samples Free on Application. Warehouses, 154, 155, 159, and 160 WHITECHAPEL ROAD, and 2, 4, 6, 8, 10, 11, and 12 BRADY STREET, LONDON. P.O.O. payable at head office. Bankers, National Provincial Bank of England

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LANCET.—"We have nothing but praise to bestow."

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KINDERMILCH } Infant

A L PINE MILK RUSKS (ground) } foods.

CREAM MILK, unsweetened, sterilized.

CREMOR HORDEATUS, delicious substitute for Cod-liver Oil.

PURE HORDEUM (Malt Extract); also with Cod-liver Oil, Hops, Iron, Lime

Quinine, and Peppine.

MALT EXTRACT LOZENGES.

MUSTARD LEAVES, best and cheapest.

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Health Exhibition,  
1884.

THE NEW PERMANENT

## ENGRAVED WINDOW TABLETS

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IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £S 15s. 0d.

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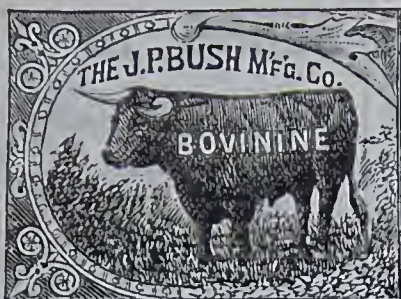
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KEEPS  
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A RAW FOOD EXTRACT.

CONTAINING  
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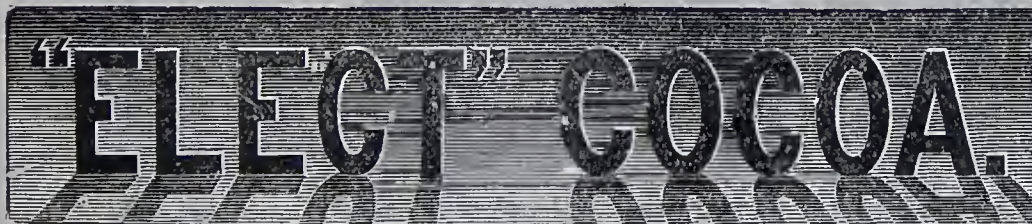
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PARIS UNIVERSAL EXHIBITION, 1889.—Gold Medal.

We would draw the attention of Chemists and Druggists to the fact that a good Pepsin must not only dissolve, but digest—i.e., Peptonise. Our Pepsins answer entirely to the requirements of the French Pharmacopœia, which requires from

Pepsin the complete PEPTONISATION of the albuminous substance (fibrine).

### OUR PRODUCTS $\frac{c}{c}$ ARE QUOTED AS FOLLOWS:—

Extract—Pepsin $\frac{c}{c}$ ( <i>French Pharmacopœia</i> )	standard 50	26/6 per lb. net.
<i>idem</i> ... ..	30	13/6 „
Amylaceous Pepsin $\frac{c}{c}$ ( <i>French Pharmacopœia</i> )	20	11/ „
<i>idem</i> ... ..	6	4/9 „
Pepsin in Scales $\frac{c}{c}$ ... ..	100	49/5 „
<i>idem</i> ... ..	30	17/ „
Pepsin Powder Solub. $\frac{c}{c}$ ... ..	30	12/ „
Granul. Pepsin $\frac{c}{c}$ ... ..	30	13/6 „
Liquid Pepsin $\frac{c}{c}$ ... ..	25	123/ per gall. net.
Pancreatin $\frac{c}{c}$ ... ..	20	16/9 per lb. net.
Dry Beef Peptone $\frac{c}{c}$ ... ..	—	12/ „

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*Who will give prompt attention to all applications for Samples.*



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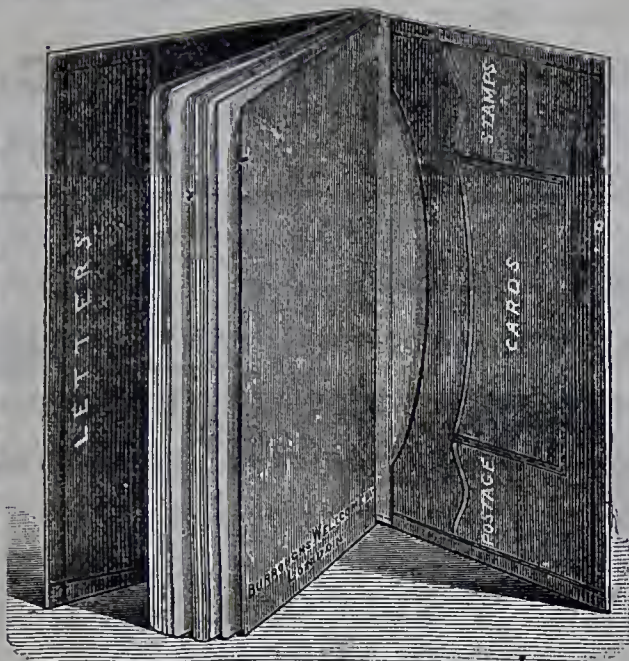
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## A.B.C. MEDICAL DIARY AND VISITING LIST FOR 1891,

WITH

## A.B.C. RECENT MATERIA MEDICA.

SENT SUBJECT TO APPROVAL.



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The Diary, which is a great improvement on that of 1890, is got up in elegant style, and, moreover, is of convenient size for the pocket.

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### B. W. & CO. POCKET MEDICINE CASES,

Fitted with a most useful assortment of Compressed Drugs in the form of "Tabloids" suitable for Christmas Presents.



Size: 8½ in. by 4 in. by 1½ in.

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This is the most complete and convenient Hypodermic "Tabloid" Pocket Case ever introduced, and has been adopted by the leading Physicians throughout the world, and is used on the principal steamships under requirement of the new medical regulations of the Board of Trade.



No. 7 (B. W. & Co.) Hypodermic "Tabloid" Pocket Case, arranged to contain 12 Tubes of the HYPODERMIC "TABLOIDS," Hypodermic Syringe with 2 Needles, and Mortar and Pestle for crushing the "Tabloids," 5s. each to the Trade.

The same Case, fitted complete, and fitted with 12 Tubes of the Hypodermic "Tabloids," selected from the list, 15s. each to the Trade.

## HYPODERMIC "TABLOIDS"

(PREPARED BY BURROUGHS, WELLCOME & CO.)



Tube of Hypodermic "Tabloids"

(PREPARED BY BURROUGHS, WELLCOME & CO.)

The *Lancet* reports that "they are readily soluble, and not at all irritating."

They present the advantages that the dose is always accurate, the active principle unchangeable, and that they are compact and perfectly soluble.

Complete Price List sent post free on application.

**BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.**

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.



# "VASELINE

(REGISTERED TRADE MARK)

NEW STYLE

# SOAP."

THE BEST EMOLLIENT IN THE WORLD.

MUST BE THE BEST BASIS FOR TOILET SOAP.

CHESEBROUGH CO., 42 Holborn Viaduct, LONDON, E.C.

Proprietors and Sole Manufacturers of the "Vaseline Preparations."

Each Tablet is enclosed in a cardboard case and packed in boxes of 3 dozen Tablets. Sample box of 3 dozen Tablets, carriage paid, on receipt of 9/-

TRADE MARK.

## "LANOLINE"

TRADE MARK.

Best basis for Ointments and Salves known. Absolutely ANTISEPTIC.

"Lanoline" is also supplied in the Anhydrous form, and in the form of Unguentum "Lanolini," which latter is composed of desirable proportions of "Lanoline" and Vaseline, and is of suitable consistence for ointments generally. We also supply "Lanoline" Toilet Soap, "Lanoline" Cold Cream, "Lanoline" Pomade, Toilet "Lanoline" in collapsible tubes, Hazeline Cream and Lano-Creolin.

Perfectly miscible with water and all medicaments. Recommended by the first physicians of all countries. (*Pamphlet sent on request.*)

BURROUGHS, WELLCOME & CO.,  
LONDON, E.C.

# ISO-BUTYL NITRIS.

Also GLASS CAPSULES of ISO-BUTYL NITRITE.

For use in Angina Pectoris, Asthma, and similar complaints, by Inhalation.

## Liquor Cascaræ Suavis.

(REGISTERED.)

An agreeable Aromatic Fluid Extract of *Cascara Sagrada*, possessing the full laxative and aperient properties of the bark.

## Sol. Æthyl Nitritis.

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

## Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

## Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

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Manufacturing Pharmaceutical Chemists,

## MANCHESTER.

Laboratories and Drug Mills, KNOWSLEY STREET, CHEETHAM.

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ESTABLISHED 1858.

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Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & Co.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ.

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The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

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South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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### CIRCULARS TO THE TRADE.

Firms who wish to address chemists and druggists throughout the British Empire in the most effective manner should apply to the Publisher of this journal for particulars of our Winter Issue, which will be published on January 31, 1891, and in which we shall be prepared to stitch 11,000 circulars. This offers an excellent opportunity for profitable advertising.

THE BRITISH PHARMACOPŒIA ADDITIONS.—Last week we offered to send a copy of the Additions to anyone who sends us a shilling in stamps; to this we have received a large number of replies, and expect to be able to send off the copies at the beginning of next week, the publishers having informed us that the book will be ready then. Further orders should be sent without delay.

### NOTICE THE COUPON.

A VERY small proportion of subscribers to whom the DIARY for 1891 has been sent have already returned the coupon enclosed therein, which provides an opportunity for competing for prizes to the amount of

FIVE GUINEAS,

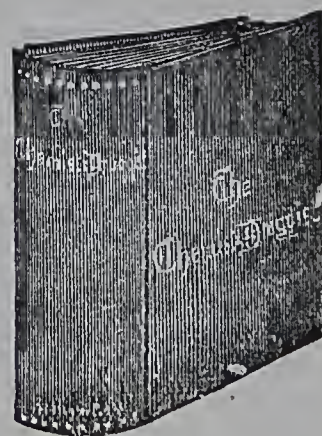
offered by us for the best estimates in regard to the advertisements which appear in the DIARY. The task set is a very easy and interesting one, and the examination of the advertisements which it involves cannot fail to be of service from a business point of view. We hope to get a large number of replies. They will be received up to December 31, 1890.

A Correspondent finds the condition expressed on the coupon—"most nearly accords with the totality of the replies"—ambiguous, and asks for an explanation. We mean this:—After December 31 we shall count the votes given, and thus ascertain the top score under each of the twelve headings. This will yield a list representing the opinion of the majority. The coupon list which comes nearest that will be regarded as the best.

### BOOKS FOR EVERY CHEMIST.

WE publish three books which every chemist and druggist who has a wholesome regard for his personal and business interests should not fail to secure. They deal with the analytical, legal, and practical departments of pharmacy. The *analytical* is covered by Mr. B. S. Proctor's "Manual of Pharmaceutical Testing" (2s. 6d., post free 2s. 9d.), which contains easily applied tests for all pharmacopœial chemicals, none of which require the resources of a chemical laboratory—simply the measures, &c., used at the dispensing-counter. The *legal* side is dealt with by Mr. Alpe, of Somerset House, in his interesting "Handy-book of Medicine Stamp Duty," price 2s. 6d. or by post 2s. 9d. The *practical* section of pharmacy, viz. dispensing, is very well looked after in "The Art of Dispensing," which is one of the most popular books in English pharmaceutical literature. It is published at 3s. 6d. and is sent by post for 3s. 10d. Nearly all the wholesale houses stock these books and apply them at the published prices.

THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.



THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.





CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

#### QUALITATIVE ANALYSIS.

THE subject of the next exercise in qualitative analysis will be a mixture of *three* salts of common occurrence. The mixture is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday, December 17, and the samples will be forwarded immediately.

Students' reports will be received up to Wednesday, December 31. Each report should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

#### REPORTS.

The subject of the last exercise was a mixture containing two parts of potash alum, two of ferrous sulphate, and one part of manganous sulphate. The calculated composition of this mixture was:—

Fe .. .. .	8.06
Mn .. .. .	4.56
Al .. .. .	2.32
K .. .. .	3.29
SO <sub>4</sub> .. .. .	37.96
H <sub>2</sub> O .. .. .	43.81
	<hr/>
	100.00

Out of the thirty-seven reports received there were ten in which the composition of the mixture was correctly given. Sixteen students failed to detect aluminium, fifteen failed to detect manganese, and in the case of potassium there were four failures.

The chief difficulties of this analysis were the detection of manganese and aluminium. In the case of the former metal the difficulty was not a very serious one, because there is one reaction, which ought to be tried in the preliminary examination, and which at once affords a means of detecting this metal with certainty. When a compound of manganese is fused with sodium carbonate and a nitrate, either of sodium or potassium, sodium manganate is formed. This compound is of a brilliant green colour: so intense is its colour that the smallest trace of manganese may be made to manifest its presence by this means. This test was not only applicable to the original powder, but to any precipitate in which the presence of manganese was suspected.

The case of aluminium was not so simple; the tests usually resorted to in the preliminary examination did not afford any means of determining either its presence or absence; and it was only by actual separation that the presence of the metal could be ascertained. In the ordinary course of procedure ammonium chloride, hydrate and sulphide were added to the solution which had failed to give a precipitate with sulphuretted hydrogen. There was a black precipitate produced, which was washed and treated with dilute hydrochloric acid. It dissolved completely, thus showing the absence of nickel and cobalt. The solution was boiled to expel sulphuretted hydrogen, nitric acid added to oxidise any iron present, and the solution was gently boiled

for a few minutes. Sodium hydrate (free from aluminium) was then added in distinct excess and the solution warmed. The precipitate which was thrown down was filtered off; it contained the iron and manganese, for which it was examined in the usual way. A minute portion of this precipitate gave a very strong manganese reaction on fusion with sodium carbonate and nitrate. The filtrate contained the aluminium; hydrochloric acid was added in slight but distinct excess, and then ammonia in distinct excess. The result of this treatment was that a flocculent precipitate of aluminium hydrate was thrown down. A precipitate of this kind might perhaps escape the notice of a student who did not know what to look for, and especially at night. For this difficulty the only remedy is experience. Unless such reactions are studied experimentally under known conditions, there is little chance of the student being able to put them in practice with any degree of success under unknown conditions.

#### PRIZES.

The First Prize for the best analysis has been awarded to ROBERT COLLINGWOOD, 11 Sussex Street, Rochdale.

The Second Prize has been awarded to J. T. STEWART, 12 Valleyfield Street, Edinburgh.

#### Marks Awarded for Analyses:

R. Collingwood (1st prize) ..	100	Per Ardua .. .. .	85
J. T. Stewart (2nd prize) ..	97	Conden .. .. .	80
Hydroxyl .. .. .	86	Moylitt .. .. .	80
W. Porter .. .. .	95	Baron .. .. .	80
A. M. S. .. .. .	85	Ut Luerer Conor .. ..	73
A. Shaw .. .. .	94	A. W. Sikes .. .. .	75
Tartar .. .. .	93	W. G. Smealy .. .. .	75
Barium .. .. .	93	Minore .. .. .	75
Tonga .. .. .	92	J. T. Bowker .. .. .	75
W. R. H. .. .. .	91	J. D. B. .. .. .	70
Rex .. .. .	90	W. Winton .. .. .	70
A. Blowpipe .. .. .	90	M. F. C. S. .. .. .	70
Col Chicum .. .. .	90	H. D. Kelf .. .. .	65
J. C. .. .. .	90	D. M. L. .. .. .	65
A. Howard .. .. .	90	J. Shaw .. .. .	60
Barnes of New York .. ..	90	A. Thorpe .. .. .	60
R. M. Williams .. .. .	88	Cresco .. .. .	40
Mona .. .. .	85	Edinburgh .. .. .	20
H. Bowden .. .. .	85		

#### TO CORRESPONDENTS.

*Prizes.*—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

*Note.*—All communications should include the names and addresses of the writers.

J. T. STEWART.—The care which you bestowed upon the preparation of your report counted greatly in your favour.

HYDROXYL.—You lost the first prize by omitting to give your address as required by the rules.

REX.—With proper care the aluminium was separated as hydrate, in quantity quite sufficient to show that it was not a mere impurity.

A. BLOWPIPE.—When you dissolved the ammonium sulphide precipitate in hydrochloric acid, and oxidised with nitric acid and added ammonia, you report that the precipitate obtained was black. The precipitate ought to have consisted of iron and aluminium hydrates, and if it was black it must have been because you omitted to expel sulphuretted hydrogen.

COL CHICUM.—The method which you employed for the detection of aluminium ought to have succeeded, if you used the reagents in proper quantity.

BARNES OF NEW YORK.—The quantity of aluminium to be detected was not very large, and owing to the method of dividing solutions which you adopted, there must have been very little aluminium left for detection.

R. M. WILLIAMS.—The precipitate which you supposed to consist only of ferric hydrate contained aluminium hydrate as well, and ought to have been examined for aluminium.

MONA.—Even if a borate had been present the powder would not have



caused alcohol to burn with a green flame, unless you had added sulphuric acid to liberate the boric acid.

H. BOWDEN.—The manganese was easily detected in the preliminary examination; the powder, fused in a bead of sodium carbonate with a little nitrate, gave the characteristic green colour. It is probable that by the action of the air you allowed the manganese to be precipitated as manganic hydrate along with ferric hydrate.

PER ARDUA.—Your paper was merely a summary of results; it was not an account of the work done. You must give evidence of either the presence or absence of every one of the ordinary metallic and acid radicals.

CONDEN.—If lead had been present you could not have obtained a clear solution of the powder in water, because a sulphate was also present. Lead sulphate is much less soluble than the chloride. If there had been enough lead present to give the slightest precipitate with hydrochloric acid, there must have been enough left in the filtrate to give a black precipitate with sulphuretted hydrogen.

BARON.—You concluded that a tartrate was present in spite of the fact that you did not observe carboulisation when the powder was heated, either alone or with sulphuric acid, and that there was no smell of burnt sugar produced.

A. W. SIKES.—The white precipitate with mercuric chloride which you attributed to the reducing action of a formate, consisted simply of mercurous sulphate; the other formic acid reactions were purely imaginary, as you will find if you try the experiments with a real formate.

MINOR.—The behaviour of a tartrate when decomposed by heat is so characteristic that it cannot well be mistaken. The powder, when heated, did not give the slightest burnt sugar odour. The white precipitate with calcium chloride was simply calcium sulphate; if you try the behaviour of this salt with acetic acid you will find it is very different from that of calcium tartrate.

J. T. BOWKER.—Your notes were too scanty to admit of any useful criticism.

J. D. B.—The potassium flame colouration was distinctly visible even with the original powder.

M. F. C. S.—The evolution of sulphurous anhydride when a substance is heated is not necessarily evidence of the presence of a sulphite. Many sulphates are decomposed by heat, and evolve sulphurous anhydride.

H. D. KELL.—If you take a solution of a hypochlorite—chloride of lime for example—and apply the tests which you used for the detection of a hypochlorite, you will find the results very different from those which you obtained with the powder.

D. M. R.—You say that on heating a portion of the powder on platinum foil with sodium carbonate and potassium nitrate you obtained a yellow mass. We tried the experiment, and obtained a green mass.

A. THORPE.—You mention the carbonic radicle as a constituent of the mixture, but you do not say anything about the reaction by which it was detected. If a sulphite had been present sulphurous anhydride would have been evolved on treating the powder with sulphuric acid.

EDINBURGH.—Your "report" presents an area of rather less than three square inches, and is embraced in eleven words. When we are obliged to resort to pigeon post you may perhaps carry off the first prize; at present you must be content with a more humble position.

## Metropolitan Reports.

**THE FOOD AND DRUGS ACT.**—The Islington Vestry unanimously decided, at their meeting, on Friday night, to petition Parliament to amend the Food and Drugs Act so as to make wholesale dealers equally liable with small shopkeepers for adulterations under the Act.

**THE NEW PUBLIC HEALTH ACT.**—Dr. Tidy, medical officer and public analyst to the vestry of St. Mary, Islington, recommended his vestry on Friday last to put the provisions of the new Act in force, and order the demolition of certain houses which he certified as unfit for human habitation and dangerous to health. This was adopted.

**SEQUAH'S NEW CAR.**—A gorgeous car, quite equal to anything George Sanger has shown in his circus processions, was sent out on Tuesday last from the works of Mr. Bedford, of Oxford Road, Islington. This car, thickly embellished with gilt mouldings and silvered glass, contains a powerful organ (worked by a small steam-engine), which gives forth some really excellent music.

**THE DEODORISATION OF SEWERS.**—Mr. Sergeant, a member of the Islington Vestry, proposed at the last meeting of that body, on Friday, that a conference of metropolitan

vestries be called, and the best chemists in England be invited to attend, with a view of ascertaining the best method of coping with the foul smells arising from the sewers. In the City, he said, several cases of typhoid had arisen through the bad effluvia. Mr. Furlong said this was an affair which the County Council should see to. The Metropolitan Board of Works had already spent thousands of pounds in experimenting on the matter. The subject was referred to the County Council.

**THE RESULT OF BETTING.**—Evan Jones, twenty-four, a clerk, of Herbert Street, Hoxton, was charged at the Clerkenwell Police Court, on December 5, with stealing, on November 7, the sum of 18s. 9d., the money of his employers, Messrs. Wyman & Westwood, druggists, at 25 Charles Street, Holborn. Mr. Saunderson Wyman said the prisoner had been in his employ for two years. It was his duty to periodically make out an account of all the moneys he required to pay away, and upon his statement in writing the moneys were handed to him. On November 7 he presented a list of sums required, which were given to him. From what witness subsequently ascertained he, on November 14, asked prisoner for the receipt of a sum of 18s. 9d. which he had drawn to pay "A. White & Sons" on November 7. Jones replied, "The receipt will not come," and muttered the word "thief." Witness discharged him at once, and said he would consider as to whether he would prosecute him. On going through his books prosecutor ascertained that there were defalcations amounting to 150l. He placed the matter in the hands of the police, and Jones was arrested. The prosecutor said he believed that betting was the cause of the prisoner's dishonesty. Mr. H. Smith sentenced the accused to three months' imprisonment with hard labour.

**ALLEGED POISONOUS POWDERS.**—An inquest was held last week at Bethnal Green on the body of James Tidmarsh, aged two years and seven months, the son of a carman, of Wellington Road. The mother, noticing her children looked feverish, and thinking the trouble arose from the irritation of teething, purchased at the shop of Mr. A. P. Barnard, chemist, 88 Columbia Road, two teething-powders, and gave one to each child. The same evening the children became worse, and Dr. Eagle, of Bethnal Green Road, was called. The elder child died the next day. The younger child got better. Dr. Eagle thought the children had taken something poisonous. The inquest was adjourned till Tuesday to allow of an examination of the contents of the stomach. At the adjourned inquiry on Tuesday last, Dr. Eagle said he had obtained from the mother a powder purchased from the same chemist as those taken by the two children, and on testing this he found that it contained mercury. He thought there must have been a large quantity to get the amount he did from one grain of the powder. In reply to the coroner, Dr. Eagle said in his opinion the poison was contained in the powder, and that there had been an overdose. Mr. Alfred P. Barnard, chemist, of 88, Columbia Road, stated that the powders sold by him contained calomel to the extent of one grain. He took great care in the mixing. The Coroner: Calomel is the heaviest ingredient of the powders, I think, and if not properly mixed it would drop to the bottom. Witness: I mix them myself, and I think it would be almost impossible. The coroner adjourned the inquiry to allow of an analysis of the stomach and the powder to be made.

**REDUCTION OF LETTER POSTAGE TO THE COLONIES.**—Last Tuesday's *London Gazette* contains three Treasury Warrants sanctioning a reduction of letter postage between the United Kingdom and (i.) the West Coast of Africa (including Sierra Leone, the Gold Coast Colony, Lagos, and Gambia); (ii.) the British West Indies (including Barbados, Trinidad, and Tobago, British Guiana, the Leeward Islands, the Windward Islands, Jamaica, &c.); and (iii.) the Australasian colonies (including British New Guinea, Fiji, New South Wales, New Zealand, Queensland, South Australia, Tasmania, Victoria, and Western Australia). The future rates for letters are to be 2½d. for every half-ounce or fractional part of half an ounce, and they will come into effect on January 1, 1891. [Please note this in DIARY where the old rates are given.]



## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.*

### BIRMINGHAM.

**MIDLAND COUNTIES CHEMISTS' ASSOCIATION.**—The next meeting will be held on December 16, at 8.45 P.M., when a paper will be read by Mr. H. Campbell (Queen's Hospital) on "Urine Analysis." The paper will be practically illustrated.—The annual supper will be held at the Midland Hotel on Tuesday, December 23. Tickets, 2s. 6d. each.

**FIRE AT A CHEMIST'S.**—Early on Sunday morning a fire was discovered at the shop of Mr. H. Johnson, chemist, 145 Gooch Street, Birmingham. Superintendent Tozer and members of the brigade promptly attended. After about thirty minutes' work the fire was got under. The front of the shop and contents were seriously damaged. The basement was well stocked with turpentine, paraffin and other inflammable material. The cause of the outbreak is not known.

### DOVER.

**THE PHARMACY BILL.**—The members of the Dover Chemists' Association held a special meeting on Monday evening to consider the proposed new Pharmacy Bill. All the members were present save one. After discussion, Mr. Hambrook proposed, and Mr. J. F. Brown seconded, and it was carried unanimously—

That the members of the Dover Chemists' Association, having considered the draft Pharmacy Acts Amendment Bill, hereby approve the same.

### LEICESTER.

**PHARMACY BILL.**—A meeting of chemists was held in the Mayor's parlour, on Thursday, December 11, at 8.15 P.M., to discuss the Pharmacy Act Amendment Bill.

### LIVERPOOL.

**PHARMACEUTICAL STUDENTS' SOCIETY.**—At the meeting of this society, held on December 4—the President, Mr. H. Wyatt, in the chair—a paper was read by Miss E. M. Woods on "British Poisonous Plants." The authoress dealt with the buttercup, aconite, hellebores, poppy, white and black bryony, hemlock, cowbane, water dropwort, belladonna, dulcamara, hyoscyamus, stramonium, digitalis, mezereum, spurge laurel, dog mercury, herb Paris, yew, fungi, &c. The derivation of the common and botanical names was discussed, and many points of interest concerning the plants and their poisons were brought out. The paper was fully illustrated by mounted specimens and water-colour drawings of the rarer plants.—The next meeting will be held on Thursday, December 18, when a paper will be read by Mr. J. E. Riddle on "Urinalysis."

### MANCHESTER.

**A FATAL DOSE OF "SOOTHING MEDICINE."**—An inquiry was held on December 5, by the Deputy City Coroner (Mr. Sidney Smelt), concerning the death of a child seven weeks old, which had resulted, the medical man (Dr. Scott) said, from the administration of a teaspoonful of castor oil with five drops of laudanum in it, given for the purpose of soothing the child. Death resulted in about fourteen hours. The coroner remarked on the ignorance shown in this case, and also on the prevalence of children being dosed with so-called soothing syrups, which in nearly every case contained poisonous drugs. He read the ruling of Lord Lyndhurst in the case of the Queen v. Webb, where it was held that "if where proper medical assistance can be had a person totally ignorant of the science of medicine takes upon himself to

administer a violent and dangerous remedy to one labouring under disease, and death ensues in consequence of that dangerous remedy having been so administered, then he is guilty of manslaughter." If it was manslaughter in a case where there was disease, then it must be manslaughter where, as in this case, the deceased was healthy. The jury, however, returned a verdict of death from misadventure. The coroner said he was much astonished at their finding. He would not say anything to the child's aunt, but he told the police officer in charge of the case that he thought she ought to be brought before the magistrates.

**MANCHESTER PHARMACEUTICAL ASSOCIATION.**—The smoking concert held at the Grand Hotel on Tuesday night proved a great success. Invitations had been issued to all the registered chemists and druggists in Manchester, Salford, and the surrounding district, and the gathering in response numbered close upon two hundred. In the absence of Mr. Bowden, the chair was taken by Mr. Harry Kemp, who discharged the duties of the post to everybody's satisfaction. There was no lack of vocal "talent" of a good class. The performers included some semi-professionals, but a considerable number of members of the trade also showed readiness and ability to "oblige," including Mr. A. C. Vallance, Mr. E. H. Chapman, Mr. F. Crow, and others.—The third sessional meeting of the association took place on Wednesday night at the rooms of the Chemical Club, Victoria Hotel, but the members are apparently "non-stayers." Fatigued by the exertions of the previous night, they made but a poor muster. The proceedings, which did not last many minutes, do not call for a report.

### NEWCASTLE-ON-TYNE.

**THE BURNED CHILD.**—On behalf of the fire brigade inquiries have been made as to the nature and quantities of explosive and inflammable materials stored in the city. Pharmacists have been requested to give information as to stock of that nature and its place of storage. The idea is that the men would thus be in a position to know lurking danger, and avoid unnecessarily exposing themselves to it.

**CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.**—A conversazione and dance was held in the Northumberland Hall on Friday evening, December 5, and proved a great success. Besides the members of the association and their friends, there were present several well-known chemists of the town and district who take an interest in the junior association. The musical programme was under the immediate supervision of Mr. George Cormack, and Misses Dorab McBryde, Johnson, and McClumpha and Mr. Rogers contributed to the entertainment. Dancing commenced at 10 P.M., and about thirty-five couples kept up the business merrily till early on Saturday morning. Messrs. P. Bell and Pattison acted as M.M.C.

**TRADE MOVEMENTS.**—Mr. Alfred Wright, A.K.C., who has for several years been manager of the retail department of Messrs. Brady & Martin, is about to leave Newcastle for Yeovil, where he will enter into business. Mr. Wright has taken an active part in the North of England Pharmaceutical Association, having been all along curator of its museum, and for the past two or three years lecturer on materia medica. Mr. J. W. Hunter has disposed of his business in High Street, Gateshead, to Mr. Baker. Mr. Hunter retains his shipping business. Mr. Ord has opened a neat pharmacy in Redhenge Bridge Road, Gateshead, and closed his old place on the north side of the river.

### SOUTHAMPTON.

**THE EARLY CLOSERS** are still struggling against the natural depravity of the trade. A meeting was called on December 2 by Mr. O. R. Dawson, the pharmaceutical local secretary, and nine attended. A resolution, pledging the chemists to close at 5 o'clock on Wednesdays, from January 1, 1891, was moved by Mr. Wride, jun., and seconded by Mr. W. Bates. The resolution declared that closing should mean bolting the doors. Six voted "Aye," and three "No." Copies of the resolution have been sent to



all the chemists; but the committee reports some lack of sympathy, and now the hope is expressed that chemists will assist the early-closing movement as far as possible—if not by closing entirely, as per resolution, then by closing the door and showing as little light as possible. They still hope that greater unanimity will soon prevail.

## SCOTLAND.

## DUNDEE.

**THE ALLEGED POISONING OF A WIFE.**—Great interest is taken in Dundee in the charge made against Mr. John Webster, hotel-keeper, Kirriemuir, of having poisoned his wife with a view, it is alleged, of obtaining the 1,000*l.* for which her life was insured, and for which only one premium had been paid. Mrs. Webster died on August 4, after three days' illness, and Dr. Clark, Kirriemuir, gave a certificate that death was the result of gastritis. Subsequent inquiries, however, led to an order for the exhumation of the body, and the viscera and other parts of the body were entrusted to Dr. Littlejohn, of Edinburgh. It is stated in some quarters that Mrs. Webster was taking a medicine containing some arsenic, which had been prescribed for her by a Dundee physician, but this has not yet come out. The local chemists have all been interviewed as to their sales of poison to either Mr. or Mrs. Webster.

## EDINBURGH.

**CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.**—The feature at the meeting held on Wednesday, December 3, was a paper by Mr. John Findlay on "Pharmacopœial Tinctures." The author had experimented with five different menstrua, by the maceration method, the aim of the investigation being to determine especially the influence of time in the extraction of the soluble matter. The results were tabulated in five long tables, which we regret we are unable to print this week, but to show the nature of Mr. Findlay's results we compare some of them with those reported by Mr. Robert Wright to the Pharmaceutical Conference. In the cases quoted rectified spirit was used as the menstruum, and the figures represent grains of extractive obtained from 1 fluid oz. Mr. Findlay dried his residues on a water-bath until they ceased to lose weight:—

	Wright	Findlay macerated			
		1 day	2 days	7 days	14 days
Aconiti ..	4.5	5.0	11.0	11.0	11.0
Arnica ..	2.5	2.25	2.5	2.5	2.5
Cinchona ..	19.0	14.0	17.0	19.0	19.0
Cinnamon ..	7.0	5.0	5.5	7.0	7.0
Cubera ..	8.0	4.0	4.5	8.0	8.0
Laricia ..	7.5	5.0	5.5	7.5	7.5
Pyrethri ..	7.0	4.5	5.0	6.5	6.5
Sumbul ..	13.0	9.0	10.5	12.5	12.5
Veratri viridis ..	5.0	3.0	3.0	4.5	4.5
Zingiberis ..	2.0	1.5	1.5	2.0	2.0

With other menstrua the ratio of influence exercised by time was practically the same as with rectified spirit, and it was noticeable that some drugs appeared to be none the better of prolonged maceration. Thus, as much extractive was obtained at the end of one day as at the end of fourteen in the case of cochineal and quassia, while in all cases extraction appears to have been complete at the end of seven days. A paper on "Pilula Ferri Protochloridi" was also read by Mr. James B. McLaren, in which the writer referred to the use of lanoline as an excipient. He had made pills with anhydrous protochloride of iron and anhydrous lanoline, and kept them under observation. They were rolled in liquorice powder. When first made the pills were fairly hard, and looked quite satisfactory. In the course of a few days, however, they became quite moist, and very unsightly externally, at the same time assuming an olive brown colour. If the pill be cut in two it is seen that internally the mass is still unchanged, but the softening gradually penetrates deeper into the mass till the whole becomes quite pasty in consistency. A coating of varnish was found not to prevent

this change, and the writer found the following formula to give much better results:—

Anhydrous protochloride of iron  
Powdered liquorice  
Extract of liquorice  
Mix to make one pill.

A discussion followed, and it was intimated that an even meeting of the association would be held in December.

## GLASGOW.

**TRADE ITEMS.**—The Medical Stores (Limited) are fitting up a handsome pharmacy in the Prudential Buildings, Renfield Street.—Mr. John Farmer, chemist, has taken a shop at 9 Columba Place, Clydebank, near Glasgow, for a drug business.

## General News.

**CARBOLIC-ACID POISONING.**—Annie Brooker, 36, cook in the service of a lady at Fincbley, who was *enccinte*, poisoned herself last week with carbolic acid. The lady said in her evidence, "She knew where the acid was kept as she used it for cleaning."

**THE WRONG BOTTLE.**—An inquest was held on Tuesday at Oldham, on the body of a man named Potts, who died on Sunday from having drunk some liquid ammonia from a quinine-wine bottle. The wife had obtained the ammonia from Mr. Barlow, chemist, last April for cleaning something, and put what was left into the quinine-wine bottle, leaving the bottle in the cellar, where she kept empty bottles.

**BEFORE THE MISERY COMES.**—A young woman named Mary Marcia, living at Quindaro, Kansas, who retired quite well to her room last Saturday, after a party given in honour of her seventeenth birthday, was found dead in her bed on Sunday morning with a paper of morphine by her side. In a note to her mother, which was found on the table in her room, she said she wished to die while she was happy, having noticed that older people got more worry than she had.

**SOMEONE MUST DISGORGE.**—From a report of a sub-committee presented to the Rotherham Board of Guardians on Monday it appeared that on June 10 last the guardians had been charged 2*l.* for 4 oz. of quinine. The committee regarded the charge as excessive, and it was paid by the board in ignorance that Howards' quinine was obtainable at 2*s.* per oz. wholesale. The committee suggested that a part of the charge should be refunded. A resolution embodying these findings was passed by the board.

**THE CONSUMPTION CURE.**—In the House of Commons on Tuesday Mr. Ernest Spencer asked the President of the Board of Agriculture if he had yet received any of Professor Koch's fluid for the cure of tubercular diseases; and whether it could be obtained, on application to the officials of his Department, by the authorities of recognised public institutions. Mr. Chaplin said the Board of Agriculture had applied for a small quantity of the fluid for the purpose of making experiments upon animals, but had not yet received it; and consequently it could not be obtained on application to the Department.

**A FATAL SLEEPING-DRAUGHT.**—Mr. Braxton-Hicks held an inquest at Richmond last week into the circumstances attending the death of Miss Jane Nisbet Hill, aged 40 years. The deceased was companion to a lady at Richmond. She suffered from sleeplessness, and was in the habit of taking a chloral mixture, and of this she seems to have taken an overdose. The mixture, which was made up from a prescription given to a sister of the deceased, contained 22½ grains of chloral hydrate and 11 drops of Battley's solution of opium in each dose. The jury returned a verdict of "Death by misadventure."

**SCALES AND WEIGHING MACHINES.**—In the House of Commons on Tuesday in answer to Mr. Causton, Sir Michael Hicks-Beach said:—"The Act which was passed in July, 1889, came into operation on January 1, 1890, and provided that



persons who use for trade, after January 1, 1891, any weighing instrument not verified and stamped by an inspector of weights and measures shall be liable to a fine. The Government have no power to extend the date fixed, and it appears to me that unless an inspector considers that a weighing instrument is not correct, and declines on that account to stamp it, there is no necessity for the interference of a manufacturer to adjust it. With reasonable conduct on the part of the local authorities and the traders, I do not see why any difficulty should arise."

**H. H. WARNER & CO. (LIMITED).**—The annual meeting of this company was held at Winchester House on Wednesday, December 10—Mr. T. W. Boord, M.P., deputy-chairman, presiding. The report and balance-sheet for the year ending July 31, 1890, showed a credit balance of 105,062*l.* 18*s.* 1*d.* Out of this amount an interim dividend to January 31, 1890, at the rate of 8 per cent. per annum on the preference shares, and 15 per cent. per annum on the ordinary shares, from the date of payment of the instalments, had been paid, as well as the balance dividend on the preference shares for the half-year ended July 31, 1890. The directors proposed to write off the whole of the preliminary expenses account, amounting to 2,395*l.* 8*s.* 8*d.*, and to pay a further dividend at the rate of 20 per cent. per annum on the ordinary shares for the six months ended July 31, 1890, which would absorb the sum of 35,000*l.*, leaving a balance of 57,870*l.* 8*s.* 10*d.* Of this amount, the directors proposed to place 45,000*l.* to reserve, leaving 12,870*l.* 8*s.* 10*d.* to be carried forward to the next account. The chairman, in moving the adoption of the report, said he had to apologise for the lateness of the meeting, which was due to the fact that they had to collect their accounts from their branches in Rochester, U.S., in Australia, in Frankfurt, and elsewhere. He hoped on future occasions to produce the report much earlier. As to the business generally, there had been a certain falling-off in the American business, but in other parts it had been quite satisfactory. The falling-off in the American business was chiefly to be accounted for by what appears to be the general mistrust which the American people have of English enterprises. They think that in this country we are much too conservative, and do not push matters on quickly enough; therefore, they are rather slow to believe that an American business conducted by an English company will be as prosperous as if conducted on the same lines on which it has hitherto been managed. However, Mr. Warner had assured the board that this temporary distrust is wearing off, and that at present the prospects of the company's second year's business are very favourable, and entirely to his satisfaction. They had closed their branch at Pressburg, but had opened another in Switzerland. One of their directors, Colonel Howard Vincent, who had been very assiduous in his attention to the business of the company, had, fortunately or unfortunately, taken a line in politics which he thinks renders it necessary that he should be unconnected with any American or foreign undertaking. Therefore, at an early date, he will, on that account—and on that account only—feel obliged to retire. The chairman also alluded to a circular which had been lately issued by Mr. Warner personally, inviting tenders for some of his shares in the company. The directors had seen this with much surprise. Mr. Warner, by the articles of association, is obliged to hold 50,000*l.* worth of ordinary share capital. His present holding of ordinary share capital is largely in excess of the amount indicated; in fact, the register shows that he at present holds over 300,000*l.* worth of the ordinary share capital. Therefore he is entitled to sell about 250,000*l.* worth of his shares. The directors, however, do not think he was entitled to attempt to sell them by the means which he has apparently adopted. Mr. C. T. Kingzett seconded the resolution, and stated that he had recently visited headquarters at Rochester, where he was offered every facility by the staff to look into the business. He was much struck with the magnitude of the premises, and the immense facilities for carrying on the business there. The resolution was adopted. In the course of the meeting the chairman defended the course Mr. Warner had taken in buying up the ordinary shares when some speculators on the Stock Exchange had sold them without having them, a proceeding likely, he said, to involve the company in ruin. He mentioned that at one time the price of the ordinary shares touched 130*l.*

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

**BURNED BY HER LINIMENT.**—A seamstress aged 62, living alone in the Rue Oberkampf, was the other night rubbing her limbs with a turpentine liniment. As she was sitting a little closer to the fire than was prudent, the liniment took fire, and the old lady was dangerously burned before neighbours could come to her assistance. She was removed in a precarious condition to the Saint Louis Hospital.

**TO DEODORISE BENZOL-BOTTLES.**—Monsieur L. Bondet, a pharmacist at Fumel, has recommended the following easy method for cleaning all vials having contained benzine, benzol, thymol, naphthol, and other products of the same series. Make a mixture of equal weights of sulphuric and nitric acids. Run it into each bottle so as to moisten every part of the glass. After one hour's contact, a good rinsing with plain water will suffice to make bottles as good as new.

**DEATH OF MADAME BUIGNET.**—The widow of the late Professor Henri Buignet died on October 7. She was well known for the several Buignet prizes which, in 1878, she founded in memory of her husband, who left no children. As M. Buignet, a formerly practising pharmacist in Paris, was, at the time of his death, a member of the Academy of Medicine and a professor at the College of Pharmacy, the prizes were equally divided between the two institutions. The Academy has the awarding of an annual 1,500*f.* prize and the College two prizes of 600*f.* and 400*f.* respectively.

**UTILISING A MISFIT.**—A new plan has been devised for at last making use of the new library building completed, eight or ten years since, for the Faculty of Medicine. It will probably be remembered the trouble is with the insufficiency of light, the windows being quite high up and the ceiling so lofty that the readers would be comparatively in the dark. The idea now entertained is to divide the height in two and make two floors; the upper one would then afford plenty of light on the reading-tables, and the lower would be used for storing books, and would be lighted by electricity. Meantime the expensive but rather ornamental than useful construction remains empty.

**LESS ENTHUSIASTIC ABOUT KOCH'S DISCOVERY.**—French physicians, at first very enthusiastic, begin to be less sanguine about Koch's method. Last Thursday the professors of the Paris Faculty clinics met at their president's office, on his invitation, to receive some of Koch's lymph for experimenting purposes. Three of them refused to take their share, saying it was not enough to pursue, to the end, the cure of their patients. One of the professors on the same occasion remarked that Koch's lymph, being a secret remedy, could not legally be experimented with in France. The sale alone of the article is illegal for the same reason of secrecy. In fact, should a death occur during treatment, it might go hard with the attending physician in case the family were to prosecute him for using secret remedies.

**A NEW WAY TO MAKE A BUSINESS PAY.**—One X., who kept a pharmacy in the neighbourhood of the Père Lachaise Cemetery, finding it hard to make both ends meet, hit upon a new plan to raise the wind. Leaving his Paris establishment in charge of his wife and a porter, a sheet-iron worker by trade, he took a situation as assistant in a pharmacy at Soissons, whence he sent to his wife stolen goods carefully selected from his employer's stock. Business went along swimmingly, and might have long continued, had not the sheet-iron man's ignorance caused several accidents. An official visit from the Police Commissaire in reference to these irregularities disclosed the state of affairs, and the Soissons pharmacist learned, for the first time, that he was being systematically robbed by his assistant. In consequence, the Paris pharmacy was closed, X. is to be prosecuted for theft, and the iron-man for illegal practice of pharmacy.

**COSTLY KINDNESS.**—A fatal poisoning accident was related in THE CHEMIST AND DRUGGIST of October 18, page 541, whereby a carman of a Saint-Denis soapworks and chemical manufactory lost his life. On complaint of deceased's widow the case came up, last Saturday, before the



Correotional Tribunal. It appears that Coffre, the carman in question, went to the manager of the laboratory, Monsieur Lefèvre, and asked him for a cathartic. The chemist advised him to go to the pharmacist's and get there a dose of Epsom salts, which the man did. Two weeks later, Coffre wanted some salts again; and when the chemist gave him the same advice as formerly—that is, to apply to the pharmacist's—the man insisted that there were, in the laboratory, so many chemicals that there must certainly be some Epsom salts among them. Finally, Monsieur Lefèvre acceded to his wish, and gave him from a glass jar what he thought to be sulphate of magnesia. The dose was taken that night, and, soon after, Coffre died from poisoning. Oxalic acid was at first thought to have been given by mistake but the legal inquest proved the poison to have been barium chloride. After the accident the chemist offered to the widow, as a compensation, 5,000f., which she refused as insufficient. The court sentenced Monsieur Lefèvre to a fine of 300f., and as damages towards the widow 6,000f. cash and a yearly payment of 300f. for each one of the two orphans till they come of age. One of them is two months old and the other two years and a half.

## SOCIETY OF CHEMICAL INDUSTRY.

### NEWCASTLE SECTION.

THE second meeting of this session was held on Thursday evening, December 4, in the College of Science. Mr. John Pattinson, the chairman of the section, presided, and there was a fair attendance. Papers on the following subjects, by Professor G. Lunge (Zurich) were read:—

#### SPECIFIC-GRAVITY TABLES FOR SULPHURIC ACID.

The author referred to tables worked out with the greatest care by himself and Mr. Isler. Similar work is to be done for nitric and hydrochloric acids; but, so far, the author had not been able to spare the considerable time required. Dr. Lunge criticised the apparently stupendous accuracy of a paper by Professor Pickering, and also a table of the specific gravities of concentrated sulphuric acid, by Mr. H. D. Richmond, founded upon this elaborate paper.

#### SODA MANUFACTURE.

Under this heading, Dr. Lunge described:—

- (a) A method for the estimation of free lime in black ash, being an adaptation of Winkler's method for the analysis of quicklime.
- (b) The estimation of total soda and total lime in black ash.
- (c) The estimation of available soda in alkali waste, reviewing the methods in use for determining the amount of soluble soda left in the above substance, and giving the results of experiments by Zalsciecki.
- (d) Estimation of the available soda in commercial caustic soda. In this portion Dr. Lunge referred to a paper by Messrs. Cross & Bevan, in which he considered the real error due to alumina had been exaggerated by these authors.

In the discussion on the papers, remarks were made by Mr. John Watson and by the chairman.

A communication on the manufacture of salt in Egypt from Mr. H. D. Richmond, who is now in that country, was read.

Professor P. P. Bedson exhibited Pettersson & Palmquist's portable apparatus for determining carbon dioxide in the air. As the proportion of this gas under normal conditions is only .04 per cent. by volume, this is a very ingenious piece of apparatus, but by its use, it seems, a reading to .0025 per cent. can, with practice, be obtained. An application of Lunge's volumeter, in connection with Dittmar's gas-analysis apparatus, was also shown by Professor Bedson. By means of this gas-volumeter, the volumes of gases, corrected for temperature, pressure, and moisture, may be read off without any calculation or any observations of thermometer or barometer.

### MANCHESTER SECTION.

At the meeting of the Manchester Branch of this Society, held on December 5, Mr. Ivan Levinstein, who presided, said the Chemical Committee of the Manchester Chamber of Commerce had at present under consideration the new

#### FRENCH TARIFF OF CHEMICALS.

The proposed tariff was not a general advance on the present duties, and compared with other products the Government had wisely taken care not to ballast too heavily chemical produce, which to a large extent served as raw material in the production of textiles. Still, in some few instances the proposed increase was such as to make import to France from England prohibitory. For instance, alum (ammonia of potash) and sulphate of alumina, which now paid approximately 7s. 4d. per ton, were proposed to be taxed at 30s. per ton, which was more than four times the duty at present charged. There was further an increase of about 25 per cent. on iodides of potassium and ammonium. Oleic acid, now free, would pay 1l. per ton, the duty on stearic acid was more than doubled, and oxide and carbonate of lead, cobalt salts, and calcium citrate, hitherto exempt from duty, were proposed to be charged respectively per ton 16s., 14l., and 3l. There was also an enormous and absolutely prohibitory increase on salts of quinine. On the other hand, there was proposed a reduction of duty on the following products:—Bromine and its salts, oxalic acid, borax, aluminium, chloride and chromate of potash. Out of 117 chemical products there would be a change in the proposed tariff in the case of 16 products, whilst 101 products would be taxed as hitherto. The intermediate products from coal-tar used in the manufacture of coal-tar colours, such as nitrobenzol, carbolic acid, and those not enumerated were under the present tariff free, whilst under the proposed tariff there would be a duty of 6l. per ton—a move no doubt intended to further stimulate the development of the coal-tar industry in France.

## Trade Notes

WE have found that Lucas's Evictor soap is, as it claims to be, a specially useful product for washing woollen garments.

THE American floor-wax for ball-rooms, for which Messrs. Wyley & Co., of Coventry, are wholesale agents in this country, ought to prove a saleable novelty at this season. It gives a "bite" as well as a polish to floors on which it is applied.

"LOCK ENVELOPES" are a useful patent. The envelopes are so made that by folding the end of the flange and passing it through a slot the envelope is locked, and cannot be opened without tearing. No adhesive application is employed. The agent is Mr. W. B. Marcus, 11 Bow Lane, E.C.

MESSRS. HERTZ & COLLINGWOOD, of 4 Sussex Place, Leadenhall Street, have been appointed sole wholesale agents for Great Britain by the Levico Spring Company, of Tyrol, Austria, for their natural arsenio-ferrie mineral water, and keep stock of the water for the supply of wholesale houses throughout England.

## MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

MORRISON—WOODS.—On December 6, by licence, at St. Paneras Church, by the Rev. H. Hammond, cousin of the bridegroom, John W. T. Morrison, A.P.S., Divisional Secretary of the Pharmaceutical Society (West St. Pancras), 2 Onahurgh Street, N.W., to Alice E. (Allie), youngest daughter of J. Wenman Woods, of Coldwater, Ontario, Canada.



## Pharmaceutical Society of Great Britain.

### EVENING MEETING.

MR. CARTEIGHE presided over a rather small meeting on Wednesday evening, the business being a paper on the

SO-CALLED EUCALYPTUS HONEY,

By T. P. Anderson Stuart, M.D.,

Professor of Physiology, University of Sydney, N.S.W.

Professor Stuart was not present. He had been ordered by his Government, the chairman explained, to go to Berlin that day to see what he could do in regard to Koch's fluid. As was afterwards explained, Professor Stuart was at one time a chemist and druggist. He served his apprenticeship, we believe, with Messrs. Carruthers & Allen, of Dumfries, and is still quite a young man. His attempt to clear up any mystery that is left about Australian eucalyptus honey was a pretty complete *exposé*, although on some points it may be questioned if he was fully informed. The main facts about the honey are that two or three years ago it was reported that a honey had reached Paris from Sydney which was said to be gathered from eucalyptus-trees by the "black bee of Australia." Astounding statements were made regarding the productiveness of this bee, and of the properties of the honey. As much as 600 kilos. (about 13 cwt.) were said to be obtained from one hive (generally a hollow tree), and the reported arrival of 6,000 to 7,000 kilos. of the stuff at Marseilles from Sydney served to give some credence to the statement. But the peculiar thing was that Australians knew nothing about this honey, and several prominent Australasian pharmacists, amongst them Mr. Melhuish, pronounced the thing a fraud. Of course, there is plenty of honey produced in Australia, but it is ordinary honey, Professor Stuart explained, worth 3½d. per lb. in first hands. He proceeded to tell the whole history of the honey, the object being to show that the statement that a honey containing 17 per cent. of eucalyptol and other active principles is a natural product is fallacious. There is no doubt that a substance of this character was introduced in France, and was the subject of a discussion before the Academy of Medicine there, M. Herisson, of the Chevrier Laboratory, reporting that it contained 611.6 of sugar (mostly levulose), 1.8 of ash, 215.6 of moisture, and 171 of active principles (eucalyptol, eucalyptum, cymol, colouring-matter, resin, &c.) in 1,000, while its specific rotary power was 22° and its density 1.440. Further, it was related in Christy's "Commercial Plants and Drugs" that the honey was discovered first in 1884 by a traveller named Guillemet while exploring Tasmania. The account given of the discovery sounds most mythical, and it will suffice to state that the traveller said he found his treasure in a tree 7 metres in diameter, which required 14 natives to encircle it with arms spread out. Roughly, the tree must have been about 60 feet in circumference. It is not surprising, therefore, that the traveller carried away with him the whole hive of honey obtained from the hollow of this tree, and that the sweet load was between 3 and 4 tons in weight. Beside that man the modern Samsons would tremble for their reputation, and it is conceivable that such honey might be possessed of the properties which the Academy of Medicine endorsed—viz., that it is a specific for laryngeal, bronchial, pulmonary, cardiac, and scrofulous affections; an antifebrifuge in malaria and typhoid; a blenorrhagic, and a thing to rely on for catarrhs, especially when influenza happens to be fashionable.

But the curious thing is that the bee which Guillemet described (*Apis nigra mellifera*) is an insect with which Australian experts are unfamiliar; nevertheless, Professor Stuart sought for one of the kind, and found that in addition to an imported bee, which is the chief honey-gatherer in Australasia, there is a tiny bee, a little smaller than a house-fly, and not unlike it, to judge from the specimens which were shown on Wednesday night. This is the *Trigona carbonaria* (Smith), and it does gather honey, a specimen of which was also shown. This honey is a little darker than golden syrup, and a little thicker than simple syrup, which never crystallises, although the French kind does. Professor Stuart had this examined chemically and got several

specimens, one from Mr. Maiden, of the Sydney Museum. The analysis of this by the Government analyst there will suffice to show what we are dealing with in this case. The sample reduced Fehling's solution readily; gave no precipitate with alcohol, barium chloride and lead acetate; it fermented with yeast (a thing which the French honey did not); showed the presence of pollen-grains from the wattle (an acacia); gave evidence of the presence of a glucoside and other bitter principle, but gave not a trace of essential oil on distillation. Diligent inquiry was made all over the Australasian continent. Every nook appears, in fact, to have been explored, to find a honey such as the French people have exercised themselves about, but not a trace of it could be discovered; and Professor Stuart quoted authority after authority to show that Guillemet, the traveller, the big trees, the hives, and all the other tall things, have never been seen or heard of in Australia.

In addition to that he gave a good deal that was interesting about the native bee. It is dying off, a victim to the imported bee, which is bigger, hardier, and has a sting—all the qualities, in fact, which make it the stronger species in the struggle for existence. The way in which the natives find out the hives of the tiny *trigona* is curious. They catch one, gum a bit of a flower to it, let it escape, and then run after it over all obstacles until they reach the tree where the wee guide alights. There the hive is, and a section of such a tree was shown. It was scarcely a foot in diameter. had the comb right in the centre, and could not have contained more than 5 lbs., far less the 10,000 lbs. which the imaginative traveller would have us believe.

The ordinary white honey of Anstralia is gathered by the imported bee, and does not contain essential oil. How can it? says Professor Stuart. Even if gathered from eucalyptus flowers, which is questionable, they are not known to contain encalyptol. This, and much more, was told in a very long paper, but what we report suffices to show that natural eucalyptus honey of Australia does not contain eucalyptol; the French article is an artificial mixture.

### A DISCUSSION

naturally followed. The paper showed, said the PRESIDENT, how important it is that the authorities who take the responsibility of introducing certain articles into therapeutics should take the trouble to establish the identity of the articles. Then Mr. BLOMFIELD, who has visited Anstralia, told the meeting all about Mr. E. A. Coleman's apiary at Mount Barker, S.A., from which Mr. Thomas Christy obtained his eucalyptus honey. The purport of Mr. Blomfield's speech was that Mr. Coleman was a man who could not be guilty of a fraud; he had seen the honey collected at his farm—had seen it in the comb, and when it was extracted—could assure the meeting that there was no mixing with eucalyptus oil there, and that it was exported in the natural condition. But, Mr. Blomfield went on to say, there were the two varieties of honey, one for eating and one which had the "eucalyptus" in it; he meant that it had an odour and a taste different from ordinary honey, and nobody would eat it as a food. It was that which was the real eucalyptus honey.

Mr. CHRISTY then wished to put in as evidence letters which he had from Mr. Coleman, showing that his honey was a natural product. This evidence had been published, and he mentioned this journal as one which had published it.

Mr. Christy's memory betrayed him there, but after the meeting he handed to our reporter the whole correspondence, and we find that it extends from September, 1888, to April, 1890. At the former date Mr. Christy had been importing Mr. Coleman's honey, and no suspicion seems to have arisen about its genuineness until February, 1889, when Mr. Christy informed his Australian client of the suspicion which had arisen regarding it. To that Mr. Coleman replied on April 6, strongly repudiating the assertion, and producing ample evidence of his *bona fides*, which included a certificate of inspection of his aviary, &c., signed by the Chief Secretary of South Australia, an M.P., a professor in Adelaide University, and other persons of unimpeached reputation.

The PRESIDENT examined the documents and intimated the correctness of Mr. Christy's statements, whereupon Mr. Christy continued his remarks, quoting from one of Mr. Coleman's letters a passage in which the latter stated that the dark honey is gathered from the leaves and twigs of the



"Manna Gnm" (*Eucalyptus viminalis*). When the tree is in flower it exudes a sweet juice, which is gathered by the bees and is stored as manna in separate cells of the comb, but is mixed with the honey in the process of extraction. Mr. Coleman had never shipped honey to Paris.

Professor ATTFIELD said there was no conflict in the matter at all. There were two articles—Mr. Coleman's, which was a natural product, and the French, which was a mixture containing added eucalyptus oil. He proceeded to state that he had, more than a year ago, analysed the natural product, and his results corroborated Professor Stuart. Still, the honey had an odour peculiar to itself.

The PRESIDENT said that was so, but it was not a striking odour. People were apt to be deceived about these delicate odours. He knew a lot of English people who prided themselves upon eating only real honey, who went to the Alps and ate stuff which was anything but that. (Laughter)

Mr. HELBING said that an American firm had exposed this swindle some time ago. They sent a gentleman to Australia about it, and the results of his inquiries, published in the *Druggists' Bulletin*, showed that no honey like the French article was produced naturally or was manufactured there.

Mr. MASON, speaking as one with experience of honey, said that it was quite possible that the honey might have the odour of eucalyptus. The odour of honey depended upon the flowers from which it was gathered. He had seen California honey with the odour of orange-flowers, some with the odour of peach, and clover and other flavours were common. This brought a few comments from the President and Professor Attfield, following which Mr. MACEWAN said there was no doubt that the *bona fides* of Mr. Coleman had been established; but the therapeutic reputation of eucalyptus honey arose from the French article, between which and Mr. Coleman's there was nothing in common. True, added Professor ATTFIELD, but the paper does not discredit Mr. Coleman's honey. It is claimed to have distinct properties, regarding which therapeutic data are required. After some further conversation, Mr. HOLMES replied to the discussion, pointing out that the dark natural honey did not contain mannite, as one would expect from Mr. Coleman's statement, and that the cause of the dark colour remained to be explained. The next item on the programme was

#### THE CURATOR'S REPORT.

Mr. Holmes had the first part of this in type. It referred to specimens which he had received from Dr. Treub, of Java, in reply to various questions which he had submitted to the Dutch botanist. The first was in regard to stinkwood, a specimen of which from the Hanbury collection Professor Dunstan had recently examined, and found to contain skatol. It has an overpowering fecal odour. "Are there any other of the stinkwoods of the Dutch East Indies, which contain skatol?" Mr. Holmes asked Dr. Treub. "No," was the reply; "the only one is *Celtis reticulosa*, and a 40-lb. log of it is sent" (which Mr. Holmes would not shock the meeting by exhibiting). Other stinkwoods do have a fearful odour, but Gustrof has proved that the *Celtis* is the only one which yields skatol.

Mr. Holmes also sent on several samples of false cubebs for identification in the hope that Dr. Treub would discover that they originated in his neighbourhood. The only one which the doctor recognised was the Keboe cubeb obtained from a large-leaved pepper (*Piper malissima*) which grows in Java. The mace-flavoured cubeb, and the long-stalked one do not grow in Java. Benzoin was the next thing for investigation, and Dr. Treub informed Mr. Holmes of his belief that there is no difference between Palembang and Penang benzoin—they are obtained from the same tree. Mr. Holmes doubted this, and successfully appealed to the President to corroborate his statement that the odours of the varieties were quite different. Dr. Treub went on to state that, when fresh, Palembang benzoin has the same colour as the Penang, and he sent a section of the tree showing the slice which is made in it to allow the gum-resin to flow out. The same slice is made at Sumatra, and it is Mr. Holmes's opinion that no heat is used in the extraction of the benzoin. An interesting point about the Palembang variety is that it becomes mouldy if placed in a closed jar when fresh; this does not happen with any other benzoin. As to the source of the benzoin, Mr. Holmes had something to say. Specimens of the leaf, &c.,

of the tree yielding the Palembang, sent by Mr. Jamie, late of Singapore, show that it is *Styrax benzoin*, and as this is the same as yields the Sumatra benzoin he thinks the difference in the gums must be due to the way they are made. Palembang may be more heated, and that will account for the odour being different, and the cinnamic-acid content being low. Speculating as to the source of the Penang benzoin, he referred to the statement in *Pharmacographia* that there is a tree in Western Sumatra (*Styrax subdenticulata*, Miq.) which yields a gum with a storax odour. Penang benzoin is not unlike that. In concluding his remarks on this subject, the curator called attention to the peculiar gall which is formed on the benzoin tree by an aphid (*Asteopteryx styracophila*) puncturing the leaf-bud and flower-bud, these being aborted into galls. Dr. Treub sent a herbarium specimen which shows this.

The next subject in the paper was dragon's-blood. At the Paris Exhibition of 1878 Mr. Holmes found a very fine specimen in short sticks wrapped round with leaves. It was peculiar in having a colour much brighter than ordinary dragon's-blood—in fact, it was more like carmine—and an artist thought that it would be splendid for his profession. Never until now has Mr. Holmes been able to find out how this is made. Dr. Treub now told him. We gave on November 15 an account of the specimens which Dr. Treub has sent, and to that we need merely add that that the finest coloured "gum" is made at Singapore, by pressing together the grains which are shaken out from the smallest fruit and sent from Pontianak. The other varieties are made from the grains from the larger fruits, mixed with the juice of a garcinia, which gives weight and accounts for the difference in colour.

This finished Dr. Treub's contributions. Next Mr. Holmes referred to a specimen of coto bark received from Dr. Schuchardt, explaining that "coto" is a name used for several barks, but is used in Europe exclusively for coto and paracoto barks, the sources of which are unknown. There is a coto bark in Brazil obtained from *Palicourea densiflora*, and one in Venezuela. Dr. Schuchardt's specimen was the Venezuela kind. It is Winter's bark, said Mr. Holmes, and the German journals which have taken it up should observe that it is not what is known in Europe as coto bark. After this Mr. Holmes referred to a specimen of genuine strophanthus seeds received from Professor Fraser, commenting upon the care which pharmacists should exercise in selecting this seed, there being numerous false kinds in the market. He spoke also of Neray bark (*Carapa Molluccensis*), used in Singapore for dysentery. Curiously, the large seed of this plant is used in Borneo as a febrifuge. Both bark and seed have a powerfully bitter taste, and it would be worth while, Mr. Holmes suggested, to have them investigated. Having called attention to commercial specimens of the three cresotic acids presented by Mr. Helbing, the curator resumed his seat amidst applause from a grateful audience, who quite recognised that it was a pure Holmes evening, and the President gave the proper official endorsement to that fact.

#### Personalities.

THE questions attributed in our report of the Pharmaceutical Council's meeting last week to Mr. Newsholme, in reference to the registration of Mr. J. C. Hewlett, were put, Mr. Newsholme tells us, not by him, but by Mr. Martin.

MR. JOHN WYETH, of the firm of John Wyeth & Bros. Philadelphia, who has been visiting Mr. S. M. Burroughs, has had a severe attack of pneumonia, from which he is slowly recovering, and hopes now to make his way to the Riviera to recruit his health.

THE fund for the erection of a monument to the late M. Emile Genevoix, the director of the Pharmacie Centrale de France, has reached the sum of 3,105 francs. In a recent list Mr. William Martindale, of London, appears as a contributor of 20 francs, which must be regarded as so much the more generous as M. Genevoix was, above all other things, the great prophet and propagandist of factory-made preparations.



## Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on December 3, Mr. Charles Evans, President, in the chair. There were also present the Vice-President, Mr. Wells, Messrs. Hayes, Dr. Burnes, Messrs. Beggs, Merrin, Grindley, and Professors Tichborne and Robinson.

A report from the Law Committee was read and adopted.

### CHEMISTS AND DRUGGISTS.

A report from the Pharmacy Act Amendment Committee was also read and adopted. From this report it appeared that applications from the following gentlemen to be registered as chemists and druggists had been accepted by the Council:—

Black, Wm. B., Ballyeastle  
Bell, Henry, 62 Quay, Waterford  
Brogan, Daniel, Castlepollard  
Deater, George P., 17 Lower Sackville Street, Dublin  
Clotworthy, Samuel, 15 Bridge Street, Belfast  
Clarke, James, Sherecock  
Coall, Wm. Fredk., 40 Mary Street, Dublin  
Dorman, Robert C., 2 Adelaide Villas, St. Luke's, Cork  
Fagan, Thos., Athboy  
Flanagan, Marian J., Granard  
Harman, Wm. H., 5 Vinecut Place, Cork  
Holton, Joseph, Nenagh

Haslett, Sir Jas. Horner, 18 North Street, Belfast  
Harpur, Fred A., Ballinasloe  
Hamilton, W. J., Gortin, co. Tyrone  
Hanson, Jas., Capel Street, Dublin  
Kilkelly, Forgas, Ballinrobo  
Moore, Wm. Tedlie, Letterkeuney  
McKim, Thos., Drumkeeran  
McLoughlin, John, Currigallen  
McNeight, Wm. J., The Linca Hall, Dublin  
Pelau, James, 22 Main Street, Gorey  
Reynolds, Thos. W., Scotch Street, Dungannon  
Scott, James B., 29 South Main Street, Bandon

### REGULATIONS AND EXAMINATIONS.

The PRESIDENT read a draft of regulations for the examination for the licence to act as registered druggist for approval by the Council previous to its being forwarded to the Privy Council for sanction by that body. On the motion of Mr. HAYES, seconded by Dr. BURNES, the draft was approved of.

Several letters were read from the Privy Council. One of November 15 transmitted a copy of an order of Council approving of the examiners whom the Council had appointed to conduct the examinations of the Pharmaceutical Society.

Another letter of November 22 asked whether the Council had fixed the dates for holding the examinations for men who had been in business as druggists prior to the passing of the Pharmacy Amendment Act of 1890. The power of appointing the examiners to conduct these examinations, which are under the 7th section of that Act, and of fixing the fees to be paid, is vested in the Lord Lieutenant and Privy Council, and they have appointed the following examiners, viz.:—

Norman Falkenor, M.B., Dublin;  
David J. McKenney, M.D., Belfast; and  
G. W. Allsom, L.P.S.I., Cork,

to conduct the examinations in those cities respectively; and they have fixed the fees to be paid by each applicant at half a guinea to the examiner and 2s. to the Pharmaceutical Society.

On the motion of Professor TICHBORNE, seconded by Mr. MERRIN, it was ordered that the examinations under section 7 of the Act of 1890 shall be held on the second Wednesdays in January, April, and July; and in Belfast and Cork in the following weeks, if at least twelve candidates shall apply from each of these places.

Copies were received of amended regulations under the Pharmacy Acts, which had been approved of by the Lord Lieutenant and the Privy Council, and published in the *Dublin Gazette*. One of these provided that rejected candidates may come up for re-examination on paying the examiners' fees in both the Preliminary and the pharmaceutical examinations.

### THE SCHOOL OF PHARMACY.

A letter from Sir William Kaye stated that the Lord Lieutenant and Privy Council had no jurisdiction as regarded the matter of the establishment of the Society's Chemical School.

Professor TICHBORNE: That is the conclusion at which the President and the Vice-President arrived long ago. Nevertheless, the Privy Council recognise the school in one of their orders.

A report of the House and General Purposes Committee recommended the following regulations for the management of the Society's School of Chemistry and Practical Pharmacy for adoption by the Council:—

1.—That the school be conducted by a committee of members of the Pharmaceutical Society of Ireland, being members of the Council, to be elected annually by the Council at the first meeting of the Council after the annual meeting.

2.—That the treasurer be elected from the School Committee.

3.—That the said treasurer shall submit a statement of the accounts of the school to the auditors of the Pharmaceutical Society in time for the annual meeting.

4.—That the treasurer be entitled to settle with the professors at such times as may be convenient.

5.—The registrar of the Pharmaceutical Society to act as registrar of the school.

6.—That no pupil be allowed to attend the classes until he has paid at least one half of the fees, the remainder to be paid prior to the issue of his certificate of attendance.

7.—That the certificates be signed by the professors and by the registrar of the Pharmaceutical Society.

8.—That a roll-call of attendance be duly kept by the professors.

9.—That certificates be printed for giving to candidates who have attended the classes, stating the number of hours of practical work and the extent of the course.

On the motion of Mr. HAYES, seconded by Mr. GRINDLEY, the foregoing recommendations were adopted.

### NO STAMP DUTY.

A letter was received from the Board of Inland Revenue, stating that in the opinion of that board the statutory declarations required to be made by candidates for registration as registered chemists and druggists are not statutory declarations within the meaning of the statute, and therefore not liable to any charge for stamp duty.

### CANDIDATES' MARKS.

In reference to a letter from a candidate who had passed the examination for the licence asking for his marks, an order was made that the marks should be given to all candidates applying for them, whether they had passed or not.

### RESIGNATION OF A COUNCILLOR.

A letter was read from Mr. Andrew McNaught resigning his seat on the Council. It appeared that the registrar had, on the instruction of the President, written to Mr. McNaught asking him to reconsider his determination. Mr. McNaught stated in reply that he was unable to attend the meetings of the Council, and that, as the object for which he joined had been effected, there was no longer any necessity for his continuing to be a member. The resignation was accepted, Mr. WELLS (Vice-President) remarking that they owed a great deal to Mr. McNaught. He worked very hard for them in Belfast, and afterwards went to London about the Bill; and when they had prosecutions in Belfast he did what very few persons were inclined to do—he went into the witness-box and proved their cases for them.

### ASSOCIATES.

Mr. William McNeight was elected an associate druggist, and the following gentlemen were elected members of the Society:—Mr. Patrick J. Fielding, 80 Patrick Street, Cork; Mr. Frank Harley, 6 Bridge Street, Bandon; Mr. James P. Millwood, 2 Bond Street, Queenstown; Mr. John S. Shortt, 5 Wellington Terrace, Cork; Mr. John J. Walsh, 122 Sunday Well Road, Cork; Mr. John H. Boardman, 71 Lower George Street, Kingstown; and Mr. H. A. Hall.

PARONYCHINE, an alkaloid, has been obtained by Schneegans from the plant *Herniaria glabra*, which also contains herniarin (a methyl-ether of umbelliferone) and saponin. It is to the alkaloid that the toxicity of the plant is due, although saponin also has a part in that.



## LIVERPOOL CHEMISTS' ASSOCIATION.

AT the meeting of the Association held at the Royal Institution, Colquitt Street, on Thursday evening, December 11, Dr. Symes presided, and, after preliminary business, made some remarks on the additions to the British Pharmacopœia. Thereafter the following papers were read:—

## NOTE ON CITRATE OF MAGNESIA.

By M. Conroy, F.C.S.

In a report recently issued for the quarter ending September 30, 1889, Dr. Carter Bell, the public analyst for the county of Chester, states that during the quarter he had analysed thirty-one samples of various substances, three of which were adulterated, one being citrate of magnesia. This, Dr. Bell states, "was adulterated with sugar and carbonate of soda." The article here referred to is undoubtedly the popular granular effervescent preparation known to the public by the conventional name of effervescent citrate of magnesia, under which name it had been known for over thirty years. The composition of this article is no secret, but in the face of the report just issued by the public analyst of so important a division as the county of Chester, I have thought it worth while to again make public its composition. It consists of a mixture in certain proportions of bicarbonate of soda, tartaric acid, citric acid, sulphate of magnesium, and sugar. These articles, in fine powder, are thoroughly mixed, heated gently, and passed through suitable sieves with object of forming granules. I may here mention that it cannot be made in a granular form, the only form in which it is sold, without the use of tartaric acid, and it is rather singular that Dr. Carter Bell should have missed this, which forms one of the chief ingredients.

The article prepared as described possesses mild aperient properties, hundreds of tons being made and sold annually in this country, where it is known as one of the most popular household medicines of the present day. It is the only article met with in ordinary trade as "citrate of magnesia," and it is therefore extremely absurd for a public analyst, who should know better, to report carbonate of soda and sugar as adulterants, when they are in reality constituents of the preparation.

I do not wish to defend the name "citrate of magnesia," which was given to the article some thirty years ago or more, when it was first introduced. To my mind, the name was an unfortunate one, and only imperfectly descriptive, notwithstanding the fact that it contains both citric acid and magnesium sulphate. The pharmacists of the present day, however, are not responsible for it, and the public demand the article under its old popular name.

A true citrate of magnesia could be made, but it is a totally different article, both in appearance and in properties, to the popular article, and the public do not want it, and would not have it if offered. It is, in fact, an article for which there is no demand whatever.

Another point that presents itself is that no prosecution, under the Sale of Food and Drugs Act, so far as I can find, has taken place in reference to this case, and I submit that reports of this kind should not be accepted by the authorities to whom they are submitted unless they have been proved in court.

A case was tried under the old Adulteration Act, at the Greenock Police Court, on October 16, 1875, before Bailie Paton, and I cannot do better than quote, for the benefit of Dr. Carter Bell and others whom it may concern, the judgment given in that case.

Bailie Paton said: "I must say that this is a most important case, affecting the whole drug trade. I acknowledge the ability of the agents in mastering a technical subject, and also the great scientific research of the professional witnesses examined to-day. The question is simply this—Was this citrate of magnesia adulterated? Taking the evidence as my guide, I must say that the proof fails to substantiate the charge against Mr. Kerr. Drs. Whiteford and Robertson have stated that if they prescribe citrate of magnesia, the article sold by Mr. Kerr is what they wish, and not the article known as pure citrate of magnesia. Although the professional gentlemen differed to some extent, they sub-

stantially agree that the medicine before the court, while not pure citrate of magnesia, is the article of commerce known by that name. The term does not appear in the Pharmacopœia. I think the dispenser of drugs is quite entitled to sell the article known in the trade as citrate of magnesia when it is made up in the recognised way, and acknowledged by the medical faculty. I must therefore, find Mr. Kerr not guilty of the alleged adulteration."

## THIOPHENE.

By James T. Conroy, B.Sc.

Thiophene is a body of considerable interest from historical and theoretical points of view, and the object of Mr. Conroy's paper was to show all about it, which he did in an admirable manner. First, in regard to theory, it is to be observed that until recently there was a wide gap between the fatty and aromatic groups of carbon compounds; the former are built on the open carbon chain plan, the latter have at least one benzene ring. Recently the gap has been filled by the discovery that bodies exist which have four carbon atoms in a chain, the end ones being united by an oxygen, nitrogen, or sulphur atom. These bodies are furfuran  $C_4H_4O$ , pyrrol  $C_4H_5NH$ , and thiophene  $C_4H_4S$ . They are closely related to tetrol, and have similar properties to benzene; indeed, that is where the first interesting point about thiophene comes in, for a benzene test used to be the blue colour, obtained by adding a few drops of a solution of isatin in sulphuric acid to the benzene. In 1883, Professor Victor Meyer tried this test with benzene prepared from benzoic acid and failed to obtain the colour, whilst the reaction in all cases took place with coal-tar benzene, and he proved that the blue colour is due to an impurity, which he called thiophene, and which occurs to the extent of about 0.5 per cent. in all coal-tar benzene. Mr. Conroy explained how Meyer isolated the impurity and how he synthesised it, and then went on to state that thiophene can be most easily made, according to Erdmann and Volhardt, by distilling sodium succinate with phosphorus trisulphide ( $P_2S_5$ ). Friedburg, in the April number of the "Journal of the American Chemical Society," has described this last method in detail, and Mr. Conroy has used it with success.

The process of manufacture having been described, Mr. Conroy stated that thiophene is a colourless liquid possessing only a very faint odour. It has a specific gravity of 1.062 at 23° C., boils at 84° C. (benzene boils at 80.4°) and remains liquid at a low temperature. It behaves very like benzene in most of its reactions, and from this we conclude that, as in benzene, the atoms are united to form a ring.

The homologues of thiophene are obtained by replacing the hydrogen atoms by alkyls, exactly as with benzene—e.g.,  $C_4H_3CH_3S$ , thiotoluene; and  $C_6H_5CH_3$ , toluene; and, in fact, all the derivatives are very similar to the corresponding benzene derivatives, but differ in giving the indophenin reaction.

Thiophene yields halogen-substitution products and nitro derivatives as benzene does, but the action of nitric acid on thiophene is much more violent than on benzene, complete oxidation occurring in the case of thiophene. The nitro group can, however, be introduced if a negative group is already present in the molecule, or the nitro compound can be formed directly by passing air saturated with thiophene vapour through fuming nitric acid, the liquid separating into two layers on standing, when the nitrothiophene can be removed. Nitrobenzene is readily reduced to aniline, whilst nitrothiophene only yields the amido compound if special precautions are taken.

Thiophene gives sulphonic acids, nitrites, and carboxylic acids, just as benzene does, and on passing through a red-hot tube, just as benzene yields diphenyl, so does thiophene give dithienyl.

L. E. Levi has prepared from thiophene a colour analogous to the well-known dyestuff malachite (or Victoria) green, and the double salt of this with zinc chloride,  $3(C_{12}H_7N_2S) \cdot ZnCl_2 + 2H_2O$ , is well adapted for staining microscopical sections, especially as a complementary colour to carmine.

As regards the reactions of thiophene, mention has already been made of the colour with isatin, the so-called indophenin reaction. The colour is due to the formation of indophenin,  $C_{12}H_7NOS$ , and it was only after the discovery of



thiophene that indophenin was found to contain sulphur, this element having been previously overlooked by Balyu. A second reaction is with Liebermann's reagent (a 5-per-cent. solution of sodium nitrite in concentrated sulphuric acid), which gives with thiophene a bluish-green mass, and a blue colour with coal-tar benzene.

## Legal Reports.

### A QUESTION OF QUALIFICATION.

A CASE was heard at the Shoreditch County Court, on December 6, in which Messrs. Humphreys & Williams, medical practitioners, sued Thomas Mogg, accountant, of High Street, Shoreditch, to recover 7*l.* 13*s.* 2*d.* for attendance and medicine supplied. Mr. Shakespeare Smith appeared for the plaintiffs; Mr. Herbert Smith, barrister, for the defendant. Mr. Humphreys gave evidence that in September, 1886, he and his partner attended defendant's son, and supplied him with medicine. The son died, and when they sent in the bill to defendant he repudiated it. Cross-examined: Williams kept a chemist's shop in Hoxton Street at the time, and I had a private entrance, my name being over the private door. I am registered as a surgeon; it is a foreign diploma. Williams is a chemist. His Honour: Wherefore go on with the case? You are not qualified. Mr. Herbert Smith quoted *Howarth v. Brearley* in contention that a surgeon could not charge for "attendance only." Mr. Humphreys: But surely we are entitled to be paid for the medicine my partner supplied? His Honour: No. Judgment for defendant, with costs.

### CLAIM FOR CHEMISTS' FEES.

IN the Westminster County Court on Friday, December 5, the case of Cross & Bevan *v.* Rawes came before his Honour Judge Bayley. The plaintiffs are chemical experts, of Chancery Lane, and they sued Mr. Rawes, a chemist, for 39*l.* odd for work and labour done for him in connection with the case of *Rawes v. Chance* and others, which was tried in the early part of this year in the Chancery Court by Mr. Justice North.

The solicitor for the plaintiffs, in opening the case, said that in December, 1889, Mr. Rawes was suing Messrs. Chance in respect of some patents of his in chemicals, and he retained the plaintiffs, chemists, as witnesses on his behalf to appear in the action then pending, providing, of course, that it was favourable to his case against Messrs. Chance. It was necessary for Messrs. Cross to make certain experiments with the alkali waste, which appeared to be a large element in the case, and they had to make several reports. The work which had been done had not yet been paid for.

Mr. Edward Bevan said he was one of the plaintiffs, and before his connection with his present firm he had great experience in alkali, and in November of last year the defendant called upon him and said he had been recommended to come to him by Mr. G. E. Davies to retain him. Some conversation ensued, in which he distinctly told the defendant he could not guarantee to give him a favourable opinion, to which Mr. Rawes replied that all he wanted was an unbiassed opinion. He then handed him a quantity of Blue-books on the matter. It was necessary for him (witness) to make certain experiments with the alkali. He made out a report, which he sent to Mr. Wade, Mr. Rawes's then solicitor, suggesting certain experiments, which were subsequently made, and then a second report was sent with his account, amounting to 32*l.* odd. When the case came on he was not called, and he believed the action against Chance was compromised. His first report was adverse to Mr. Rawes, but after a second series of experiments he somewhat altered his views. He understood that among many other eminent chemists retained in the action for Messrs. Chance was Sir Henry Roscoe.

Cross-examined: When Mr. Rawes called upon him first he did not tell him to look into the papers, and then if he thought he (defendant) had a *prima-facie* case against Chance, he would be further instructed. One of his experi-

ments was with carbonic-acid gas on alkali waste. He only used small quantities in his experiments, and larger quantities would have given better results. The reports were delivered to Mr. Wade.

Mr. Wm. McNab, of Great Smith Street, S.W., gave evidence that he had perused the reports prepared by the plaintiffs, and he was of opinion that the charges made were reasonable.

The defendant gave evidence that his action against Chance was withdrawn on terms. When he saw the plaintiff he left with him two Blue-books to read before any further action was taken by him. He arranged with Mr. Bevan that he should be a witness in the case at a fee of 5 guineas a day. Two or three days after he again called, and asked him if he was free to give evidence, and he then said he had not had time to look into the matter. It was then arranged that he should have the pleadings in the action as well. Mr. Bevan made a report, and in that he made an error in a fundamental principle, which would have much influenced the decision. When he next saw him he had not given any instructions for the experiments or reports up to that time. He was much surprised when he received the reports from the plaintiffs, which he would not have laid before the court as they were useless in support of his case. No fees were mentioned for the reports. He should have liked to have made Mr. Bevan a present for the work he did of about 10*l.* 10*s.*, but he did not do so because he would have had to have admitted his liability.

Cross-examined: That was why he did not answer the letters applying for payment of the account.

His Honour said he thought the plaintiffs entitled to recover 28*l.* 7*s.*—that was, deducting the amount for the first report. Judgment would be for the plaintiffs for that sum, with costs.

### SEIGEL'S SYRUP ADVERTISEMENTS.—ALLEGED LIBEL.

IN the Queen's Bench Division, London, on Monday, the case of Fox *v.* Lambert & Co. came before Mr. Justice Stephen and Mr. Justice Charles, sitting as a Divisional Court. This was an appeal from Mr. Baron Pollock who had refused to change the venue from Leeds to London. Mr. Willis, Q.C., appeared in support of the appeal, while Mr. Blake Odgers opposed it. Mr. Willis in supporting the appeal, said the action was an action for libel brought by Mr. Dacre Fox against the defendants, the proprietors of a paper styled *Everybody's Paper*, for publishing one of Mother Seigel's Syrup advertisements. The article began with an account of some guard, who had been injured on the railway, consulting a doctor at Leeds, who told him he was suffering from consumption and was incurable. It went on to say that the wrecked man came to London to consult the late Dr. Dacre Fox, at 39 Piccadilly, who confirmed his death-warrant. But, like the hero in a novel or a drama, the railway guard "comes all right in the end" by taking some of Seigel's Syrup, and "the late Dr. Dacre Fox," whom he is supposed to have consulted, turned out not to be dead but very much alive and living in retirement at Leeds, from which place he commenced actions for libel against the defendant and also against Messrs. White & Co., the proprietors of Seigel's Syrup. The defendant had pleaded that the advertisement did not refer to the plaintiff, Dr. Fox, at Leeds, and that if it did it was inserted without negligence or malice and defendant apologised and paid 40*s.* into court.

The defendant wished to state that he had not been in business long and that if he had to take all his staff down to Leeds as witnesses his business would be at standstill. Dr. Fox would most likely get substantial damages from Messrs. White & Co., who inserted the advertisement, and therefore the question whether the apology and payment of 40*s.* by the present defendant was not enough could very well be tried in London instead of Leeds.

Without calling upon the respondent's counsel, their Lordships dismissed the appeal with costs.

### A DISPUTE IN THE CHEMICAL TRADE.—ESILMAN *v.* HASSALL.

AN action was tried at the Manchester Assizes on December 3, in which the plaintiff sought to recover the price of a



quantity of "phosphocitric acid" which he had supplied to the defendant. There was no dispute as to the amount—520Z.—the action really being an action upon a counter-claim. The plaintiff is a manufacturing chemist in Manchester, and the defendant is a dealer in chemicals in London. The question for the decision of the court was whether the sale by the plaintiff of the acid to persons other than the defendant was a breach of an agreement entered into between the parties to the action in 1885, in accordance with which the defendant was to purchase all the "phosphocitric acid" he wanted for the purposes of his business from the plaintiff, and that the plaintiff should sell it to no one else. In the result his lordship gave judgment for the plaintiff for the amount claimed with costs, and also upon the counter-claim.

#### GLYCERINE IN COURT.

In the Chancery Division of the High Court, on December 5, before Mr. Justice Stirling, Mr. Aston, Q.C., who appeared for Messrs. Price & Co., of Hatton Garden, applied for an injunction against Price's Patent Candle Company, until the trial of the action, to restrain the defendants from doing that which, he submitted, was a great wrong to the plaintiffs. The facts were, shortly, these:—Price's Patent Candle Company, which was a very influential company, said that a former manager of the company, Mr. Wilson, many years ago invented a particular way of making glycerine. The plaintiffs, Price & Co., now represented by Mr. Cole, the assignee of his predecessor in title, had also for many years—certainly over twenty years within the knowledge of Mr. Cole—been in the habit of selling glycerine as "Price & Co.'s glycerine," "Price's glycerine," "Price's pure glycerine," and so forth; and with similar descriptions had been trading in other articles, such as soaps, oils, and so forth. They had on labels and otherwise used their own name in a hundred different ways as indicating the articles made and sold by them. Price's Patent Candle Company had raised an action to prevent Price & Co. from doing this, which they had been doing certainly since 1869. Not content with that, they had issued notices to Price & Co.'s customers, threatening them with proceedings if they sold glycerine with labels describing it as "Price's glycerine," &c. He was prepared to allege that there was malice in the pertinacious way in which this procedure or threat had been conducted. The motion asked that the defendants should be restrained from issuing, circulating, or allowing to remain issued or circulated, any notices or circulars representing or suggesting that the plaintiffs were not entitled to trade under the name of Price & Co., or to sell glycerine as "Price's glycerine," or "Price & Co.'s glycerine," or representing or suggesting that such glycerine was spurious. He contended that in the circumstances it was malicious on the part of the defendants to say that his clients were not Price & Co., or that Price & Co.'s glycerine was a spurious article; because if his clients could show that they had sold that article with that description for twenty years, and probably by their predecessors for fifty years, it could not be said that his clients were not doing so *bona fide*.

His lordship asked why Price & Co. had done nothing since April, when the last act complained of was committed.

Mr. Aston said that Price & Co. had brought their cross-action.

His Lordship: Yes; and if you are right you will get the greater damages at the trial.

Mr. Aston said that his clients applied now because they found that, as time went on, instead of the defendants' notices being ignored by his client's customers, they were stopping their trade. They had only waited till they were assured that their trade was being ruined—their customers being frightened to trade with them. A notice had been sent out by the defendants, nominally withdrawing, but really accentuating, the terms of their previous notice.

Mr. Graham Hastings, Q.C., appeared for Price's Patent Candle Co., but, without calling upon him,

His lordship gave judgment on the motion. The defendants, he said, had, it appeared, issued certain circulars to the plaintiffs and the customers of the plaintiffs, in which they stated that, by reason of being the original inventors of the process for glycerine manufacture, and by long usage

of it, "Price's pure glycerine" had come to be known in the trade as "Price's Patent Candle Company's glycerine," manufactured by them only. At the beginning of March last, Price's Patent Candle Company discovered that a mode of trading was going on which they regarded as an infringement of their rights. The present plaintiffs, Price & Co., appeared to be the manufacturers of the article which Price's Candle Company alleged to be an infringement, and they have a certain number of customers to whom they sold it, and who in turn sold it to the public. Being of a mind to stop that improper act, as they regarded it, Price's Candle Company issued certain circulars. Nor did they stop there. On March 18 they brought an action against the present plaintiffs to restrain those alleged infringements of their rights. On or about May 1, Price's Patent Candle Company issued a new notice to those customers of Price & Co. to whom they had previously sent circulars. In this new notice they stated that they had commenced their action against Price & Co., who had defended it by stating that they had done what was complained of for a long series of years; that they were surprised at this because they thought that if so it must have come earlier to their knowledge; but that as this defence had been raised they did not intend to take any steps against anyone selling the articles unless and until the action had terminated in their favour. Since then no other notice had been sent. Now, in the action taken by Price's Candle Company his lordship could see no trace of want of good faith. At the end of April, the parties were already at arm's length. The act complained of was done, yet Price & Co. took no further step till November 17, when they wrote asking the absolute and unconditional withdrawal of the circular, which the defendants refused; and thereupon Price & Co. brought this action. It seemed to his lordship clear that he could not grant the injunction now asked for. He saw every possible objection to doing so. To grant the injunction a *prima-facie* case of malice must be made out, and that seemed to his lordship to have failed. Secondly, if a person applied for an injunction—and above all a mandatory injunction, as this practically was—he must come to the court properly. No reason had been given to satisfy his lordship that Price & Co. might not have come to the court, if they had desired, some time in May, instead of waiting until November. For these reasons it seemed to him that an interlocutory injunction should not be granted. It might be that the present plaintiffs were suffering some damage; and if the defendants had maliciously issued these circulars, he hoped the plaintiffs would recover damages sufficient to compensate them for any injury that might have been done to them.

The motion was accordingly refused, with costs.

#### DISPUTED TRANSACTIONS IN BORACITE.

SOME of the preliminaries in connection with the formation of the Borax Company (Limited) formed the subject of an appeal, on Tuesday and Wednesday last, to the Master of the Rolls and Lords Justices Lopes and Kay, Mr. Shireswell, Q.C., appearing for the Borax Company, as appellants, and Mr. Finlay, Q.C., for the respondents, the plaintiffs in an action against the company and Mr. William Clarence Watson.

Mr. Watson—having secured from the Imperial Ottoman Government the concession of mines in Asia Minor, said to be the only source of supply of boracite, from which borax is made—it was alleged, engaged with Mr. W. H. Frith, of Lombard Street, in the promotion of the company registered on December 1, 1887, as the Borax Company (Limited). On November 17 in that year Mr. Frith, as agent for Mr. Watson, agreed with Messrs. Puddy, brokers, acting for and on behalf of Mr. William Harris, to supply 180 tons of boracite on specific terms, and also undertook—unless prevented by anything beyond his control—to supply Harris with such boracite as he might require, not exceeding 700 tons per annum, for five years, on the same terms as those on which Mr. Watson was supplying other firms. In reliance on this agreement, plaintiffs alleged, they had expended some 1,000Z. or 1,100Z. in machinery, plant, and premises for working the boracite; but the defendants, knowing that plaintiffs were unable to obtain it elsewhere, refused to carry out their contract. Its specific performance was asked for, and, alternatively, 5,000Z. damages for non-performance.



The defendant Watson to this pleaded besides some legal points, that it was an implied part of the agreement that he was acting in the matter on behalf of the Borax Company, then in course of formation, and in case of its purchase of Watson's rights in the mine his liability was to cease and be transferred to the company; that the agreement was so accepted by Puddy & Co., and plaintiffs on the formation of the company required the company to acknowledge, and they did acknowledge, the contract; and that he had satisfied his obligation by the transfer; alternatively he pleaded nullity of the agreement.

The appellant company pleaded neither knowledge, part, nor lot in the agreement; but that they had supplied to the plaintiffs 280, and not merely 180, tons of boracite, and had notified to Puddy & Co. their willingness to dislodge the terms on which they were supplying other firms, and to supply them as well, but plaintiffs had refused this offer.

The jury finding that the company, and not Mr. Watson, was liable under the contract, they appealed against the decision, on the ground of misdirection by the judge, and that the verdict was against the weight of evidence. The plaintiffs had likewise given notice of an application to review the verdict, and have it entered also against the defendant Watson.

Before counsel for the appellant had concluded his case, a paper was handed to him, and he announced that the parties had agreed on terms, Mr. Finlay saying plaintiffs were to have 1,000*l.* and all costs.

### BANKRUPTCY REPORT.

GEORGE EDWARD STEPHENS, Neyland, Chemist and Druggist.

THE public examination of this debtor took place at the Pembroke Docks Bankruptcy Court on December 3, before Mr. Registrar Owen. The debtor alleged, as the cause of his failure, losses through opposition in trade, bad trade, and illness in his family. Mr. W. J. Jones, solicitor, Haverfordwest, appeared for the debtor. Previous to the examination, the Official Receiver, addressing the Registrar, said: "This is about the most straightforward case I have ever had, so I do not intend to prolong the examination very much." The debtor, in reply to the Official Receiver, said: "The statement I have made is true to the best of my knowledge and belief. I have resided in Neyland twenty-six years. The business was never satisfactory—that is to say, I was never able to save money out of it. I bought the business originally, and there is part of the purchase-money still due thereon. I paid the interest regularly until lately. The amount due was allowed to remain owing to the friendly terms upon which I stood with the person I bought it of. He (Rev. Moses Williams) never pressed me for it. My total indebtedness amounts to 220*l.* 12*s.* 9*d.*, and my assets are estimated at 105*l.* 9*s.* The largest creditor is the Rev. Moses Williams. The sum of 47*l.* 9*s.* 8*d.* is due to another friend, Dr. Symonds. It was a loan. He lent me 50*l.* It was a voluntary act on his part. He came to me and simply asked me if 50*l.* would be of assistance to me in my business, and I gratefully accepted it. My trade-debts are a small amount. Another chemist, to whom I thought I had sold my business for 200*l.*, did not buy it, but came and set up on the opposite side of the road, and there is not room for two chemists in Neyland."

In reference to an item in the deficiency account showing 15*l.* to have been given away, the debtor said he gave away more than he ought to poor relations, but that ceased more than two years ago. He gave it in small sums. The long illness and burial of his first wife involved a heavy expenditure. He did not know he was insolvent until three months ago, and had incurred no debts since, except one of 10*s.*

The Registrar: This seems very straight.

The Official Receiver: I have never known a more straightforward case.

The examination was declared closed.

### SALE OF GOODS BILL.

WE give below the first 18 clauses of the Sale of Goods Bill drafted by his Honour Judge Chalmers as a codification of the law concerning such sales. An almost identically drafted measure was introduced into the House of Lords in 1889 and passed a second reading. This Bill is likely to be brought forward in the Session of 1891. The Bill is almost entirely a reproduction of the common law, and would not as it stands apply to Scotland—as in several points the law of Scotland is in opposition to that prevailing in England. These points will be indicated in notes.

#### PART I. FORMATION OF THE CONTRACT.

##### *Contract of Sale.*

1. *Sale and agreement to sell.*—(1) A contract of sale is a contract whereby the seller transfers or agrees to transfer the property in goods to the buyer for a money consideration, called the price, which the latter pays or agrees to pay. There may be a contract of sale between one part owner and another.

(2) A contract of sale may be absolute or conditional, and, when it is conditional, the conditions may be suspensive or resolute.

(3) Where under a contract of sale the property in the goods is transferred from the seller to the buyer the contract is called a sale; but where the transfer of the property in the goods is to take place at a future time or subject to some condition thereafter to be performed, the contract is called an "agreement to sell" or, as the case may be, an "agreement to buy."

(4) An agreement to sell or buy becomes a sale when the time elapses or the conditions are performed subject to which the property in the goods is to be transferred.

##### *Quasi-Contracts of Sale.*

2. *Satisfied judgment in trover, trespass, or detinue.*—Where in an action for trespass to, or the conversion or wrongful detention of goods the plaintiff recovers the full value of the goods as damages, and the defendant satisfies the judgment, the transaction operates as a sale of the goods from the plaintiff to the defendant as from the time when the judgment is satisfied.

##### *Capacity of Parties.*

3. *Capacity to buy and sell.*—Capacity to buy and sell is co-extensive with capacity to contract.

Provided that where necessaries are sold and delivered to an infant or other incapable person, he must pay a reasonable price therefor.

"Necessaries" in this section mean goods suitable to the infant's or person's condition in life and to his actual requirements at the time of the sale.

##### *Formalities of the Contract.*

4. *Contract of sale, how made.*—Subject to the provisions of this Act and of any statute in that behalf a contract of sale may be made in writing (either with or without seal), or by word of mouth, or partly in writing and partly by word of mouth, or may be implied from the conduct of the parties.

5. *Contract of sale for 10*l.* and upwards.* (1) No contract for the sale of any goods of the value of ten pounds or upwards shall be allowed to be good unless the buyer shall accept part of the goods so sold, and actually receive the same, or give something in earnest to bind the contract, or in part payment, or unless some note or memorandum in writing of the contract be made and signed by the party to be charged or his agent in that behalf.

(2) The provisions of this section apply to every such contract, notwithstanding that the goods may be intended to be delivered at some future time, or may not at the time of such contract be actually made, procured, or provided, or fit or ready for delivery, or some act may be requisite for the making or completing thereof or rendering the same fit for delivery.

(3) There is an acceptance of goods within the meaning of this section when the buyer does any act in relation to



the goods which recognises a pre-existing contract of sale whether there be an acceptance in performance of the contract or not.

(4) The provisions of this section do not apply to a contract of exchange of goods.

The first and second paragraphs of this clause reproduce the operative sections of the Statute of Frauds (29 Chas. II. c. 3) and the modifying Act (9 Geo. IV. c. 14). The Statute of Frauds does not apply to Scotland. The other paragraphs indicate how the Act has been interpreted by the courts. In order to meet what seemed hard cases, the courts have gone into almost impossible refinement in construing the Act. For example, when there is no written memorandum, the Act requires an "actual receipt" by the buyer of some portion of the goods. But it has been held that in some cases after sale, the seller holds the goods as agent for the buyer, and that then there may be an "actual receipt" by the latter, although the goods have never for an instant left the seller's possession. Lord Holt, who promoted the Act, said that each line of it was worth a king's ransom. A later judge has said that each word of it has cost the litigants of this country a king's ransom. Mr. Justice Stephen and Sir Frederick Pollock have strongly urged the repeal of the section.

#### *Subject-matter of Contract.*

6. *Existing or future goods.*—(1) The goods which form the subject of a contract of sale may be either existing goods or future goods.

(2) There may be a contract for the sale of goods, the acquisition of which by the seller depends upon a contingency which may or may not happen.

(3) Where by a contract of sale the seller purports to effect a present sale of future goods, the contract operates as an agreement to sell the goods.

7. *Goods which have ceased to exist.*—Where there is a contract for the sale of specific goods, and the goods unknown to the seller have ceased to exist at the time of the contract, the contract is void.

8. *Goods perishing before sale but after agreement to sell.* Where there is an agreement to sell specific goods, and subsequently the goods, without any default on the part of the seller or buyer, perish before the property or risk passes to the buyer, the agreement is thereby avoided.

#### *The Price.*

9. *Ascertainment of price.*—(1) The price in a contract of sale may be fixed by the contract, or may be left to be fixed in manner thereby agreed, or may be left to subsequent arrangement.

(2) When the price is not determined in accordance with the foregoing provisions the buyer must pay a reasonable price. What is a reasonable price is a question of fact dependent on the circumstances of each particular case.

10. *Agreement to sell at valuation.*—(1) Where there is an agreement to sell goods on the terms that the price is to be fixed by the valuation of a third party, and such third party cannot or does not make such valuation, the agreement is avoided; provided that if the goods or any part thereof have been delivered to and appropriated by the buyer he must pay a reasonable price therefor.

(2) Where such third party is prevented from making the valuation by the act or default of the seller or buyer, the party not in default may maintain an action for damages against the defaulting party.

#### *Conditions and Warranties.*

Certain stipulations which in England would only be treated as warranties are treated in Scotland as conditions, so that where an English buyer could only treat the breach of the stipulation as a ground of damages, a Scotch buyer might be entitled to rescind the contract.

11. *Implied condition or warranty may be expressly excluded.*—Where a condition or warranty arises in a contract of sale by implication of law, it may be negatived or varied by express agreement.

12. *Stipulations as to time of payment.*—(1) Unless a different intention appears from the terms of the contract, stipulations as to time of payment are not deemed to be of the essence of a contract of sale.

(2) In a contract of sale "month" means *prima facie* calendar month.

13. *Contract of sale may be accompanied by warranty.*—(1) A contract of sale may be accompanied by one or more warranties, expressed or implied, given by the seller to the buyer.

(2) A warranty may be either included in the contract of sale, or may be given after the contract of sale is completed.

(3) Where a warranty is given after the contract of sale is completed, it must be supported by fresh consideration.

14. *Buyer may treat condition as warranty.*—(1) Where a contract of sale is subject to any condition for the benefit of the buyer, the buyer may elect to treat the non-performance of such condition as a breach of warranty, and not as a ground for repudiating the contract.

(2) Whether a stipulation in a contract of sale is a condition or a warranty depends in each case on the construction of the contract.

(3) Where a contract of sale is not severable, and the buyer has accepted part performance of the contract, a breach of any condition on the part of the seller can only be treated by the buyer as a breach of warranty.

15. *Sale by description.*—Where there is a contract for the sale of goods by description, there is an implied condition that the goods shall correspond with the description; and if the sale be by sample, it is not sufficient that the bulk of the goods correspond with the sample if the goods do not also correspond with the description.

16. *Implied warranty of title.*—By a contract of sale the seller impliedly undertakes that he has the right to sell the goods, unless the circumstances of the sale or agreement to sell are such as to show that the seller is transferring or agreeing to transfer only such property as he may have in the goods.

17. *Rule of caveat emptor.*—Subject to the provisions of this Act and of any statute in that behalf, there is no implied undertaking as to the quality, fitness, or condition of goods supplied under a contract of sale.

Provided that—

*Implied warranties of quality, fitness, or condition.*

(1) An implied undertaking as to quality, fitness, or condition may be annexed by the usage of trade.

(2) Where the buyer, relying on the seller's skill or judgment, orders goods for a particular purpose known to the seller, and the goods are of a description which it is in the course of the seller's business to supply (whether he be the manufacturer or not), there is an implied undertaking that the goods shall be reasonably fit for such purpose provided that in the case of a contract for the sale of an article of a well-known ascertained kind, there is no implied undertaking as to its fitness for any particular purpose.

(3) Where goods are ordered by description from a seller who deals in goods of that description (whether he be the manufacturer or not) and the buyer has no opportunity of examining the goods, there is an implied undertaking that the goods shall be of merchantable quality and condition.

(4) Where there is a contract for the sale of goods by a manufacturer, as such, there is, in the absence of any trade usage to the contrary, an implied undertaking that the goods are of the seller's own manufacture.

This rule does not prevail in Scotland.

(5) An express condition or warranty does not negative a condition or warranty implied by this Act, unless inconsistent therewith.

#### *Sale by Sample.*

18. *Sale by sample*—(1) A contract of sale is a contract for sale by sample when there is a term in the contract, express or implied, to that effect. The exhibition of a sample implied during the making of the contract does not of itself make it a contract for sale by sample.

(2) In the case of a contract for sale by sample—

(a) There is an implied undertaking that the bulk shall correspond with the sample in quality and condition.

(b) There is an implied undertaking that the buyer shall have a reasonable opportunity of comparing the bulk with the sample.

(c) There is an implied undertaking that the goods shall be free from any defect, rendering them unmerchantable, which would not be apparent on inspection of the sample.





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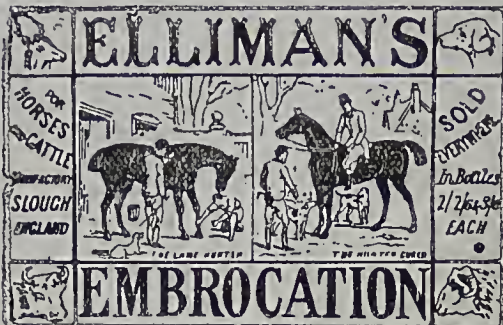
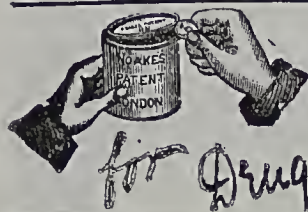
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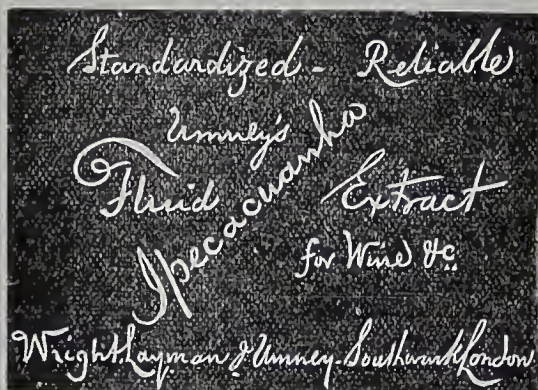
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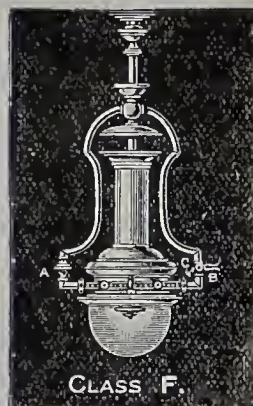
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## THE PHARMACOPŒIA ADDITIONS.

SYNTHETIC REMEDIES.

WITH the thanks which were voted to it last week, we  
presume that the Pharmacopœia Committee of the Pharma-  
ceutical Society has ceased to exist. It was called into  
existence for a specific purpose, which it has fulfilled, and



there is an end of it. We think this is regrettable; not because we feel disposed to applaud all that Mr. Schacht said last week about the unique *personnel* of the committee, but because it looks like a break of relationship between the General Medical Council and pharmacy. It is no abstract principle such as councillors' "gush" over that we support when we advocate the establishment of a permanent committee of pharmacists, similar to the one which has been disbanded. There is practical utility in such a committee, and it could be of great assistance to the General Medical Council reporter, by consulting with him periodically, and putting to the test those improvements which are suggested on Pharmacopœial processes, tests, &c. This committee might consist of the Presidents of the Pharmaceutical Societies of Great Britain and Ireland, and of the Pharmaceutical Conference, and six ordinary members, three appointed by the Council of the Pharmaceutical Society of Great Britain, and one by its Scotch Executive, one by the Irish Council, and one by the British Pharmaceutical Conference. Such a committee would be thoroughly representative of the pharmacy of the three kingdoms, and would thus be able to supply that local knowledge which becomes necessary when such an article as the syrup of ferrous chloride is introduced. Obviously its existence would depend entirely upon the General Medical Council, which solely possesses legal power in regard to the Pharmacopœia; but since it has acknowledged the beneficial influence of co-operation with pharmacists, there is much to be said in favour of the scheme which we propose, or something akin to it. It will be necessary, of course, to provide such a committee with funds to carry on the work entailed, and the profits on the publication of the Pharmacopœia are sufficiently ample to provide for that.

One of the features of the "Additions" is the introduction of a number of those new medicines which are generally called "synthetic remedies." There has been nothing in the Pharmacopœia hitherto of quite the same character.

This new departure has presented a difficulty to the compilers of the "Additions" in regard to nomenclature. This difficulty was initiated by the Royal College of Physicians, who, objecting to such names as "antifebrin" and "antipyrin" recommended that "names involving theory of mode of action should be used only as synonyms." This opened the question as to the use of trade-mark names and the introduction of patented articles. There is, as we pointed out six months ago, a wide-reaching principle underlying the proposal in regard to distinctive names, as well as the recognition of patented articles. The Pharmacopœia authorities have skilfully avoided any reference to the latter phase of the question, and this may surprise many; but the facts are these: Take, for instance, the case of phenazone, which only exists as antipyrin. This is the subject of a patent, and the word is a registered trade-mark in Great Britain. The patent rights will, in course of time, expire, but the trade-mark will remain; hence, it is argued, although at present phenazone and antipyrin are synonymous, a time will come when anyone may make it, and then the importance of having a name other than the trade-mark will be fully appreciated. Although there is a great deal to be said in favour of this principle, we question if the new names adopted by the Pharmacopœia will prove strong enough against those already established. In the case of antipyrin and lanoline they certainly will not at present, but we have in our recollection that at one time "Tr. opii camph." had all the best of it by the side of "Tr. camph. co." It is different now, and so we expect it will be with the queer-named synthetic remedies twenty years hence.

The work which the Pharmacopœia Committee had to do

in regard to the characters and tests for these synthetic medicines was comparatively light owing to the recent publication of a new German Pharmacopœia, and much recent German literature upon the subjects. Acetanilide is a very old compound but recently introduced as a medicine. The melting-point fixed upon by the Pharmacopœia is somewhat low, although practically the same as that of the German Pharmacopœia. Perfectly dry acetanilide really melts at 115° C., and we should feel inclined with Ritser to put the melting-point of air-dry acetanilide at 114° C., instead of the B.P. 112.8° C.; but the tests given subsequently in the Pharmacopœia are likely to exclude any objectionable impurity. The iso-nitrile test is characteristic of the primary monamines generally, to which class of compounds acetanilide belongs. We are somewhat surprised at the manner in which the ferric chloride test is given. The Pharmacopœia states: "It is soluble in eighteen parts of boiling distilled water, forming a clear, neutral, inodorous solution, which is not affected by solution of perchloride of iron." If the iron solution is added to the hot solution the latter will be affected, heat sufficing when the iron salt is present to give the acetylene reaction, and that is why the German Pharmacopœia states that "the cold, saturated watery solution of antifebrin, with the addition of ferric chloride solution, does not change the colour of the latter." It would be desirable, therefore, to interpolate the words "after cooling" between "which" and "is" in the above sentence. The tests given for "glucide" (saccharin) are very full and explicit. The sulphuric-acid test excludes sugar and other hydrocarbons, and the iron test proves the relationship of the compound towards benzoic acid, which is freed as the result of saponification. Although homatropine hydrobromate had only one vote in its favour, and in consequence did not appear to have a strong case for officialising, the base itself had the support of three good authorities, and the hydrobromate has been recognised by two Pharmacopœias—the Dutch and the German. This alkaloid is really a synthetic body, although made from atropine, and homologous to it. The latter when treated with barium hydrate splits up into tropine and tropic acid, which would reunite again by heating in presence of hydrochloric acid, but in the case of homatropine instead of heating the easily convertible tropine with tropic acid, amygdalic or mandelic acid is used, and oxytoluyl-tropeine or homatropine as the product. The characters and tests for this body given by the British Pharmacopœia are better on the whole than the Dutch and German, and exclude all possibility of contamination with atropine and other bodies. Paraldehyde may be included amongst the synthetic medicines, although it is not strictly a product of that kind, being a simple polymer of a well-known substance. It seems desirable, also, to call attention without delay to a rather serious blunder which occurs under "characters and tests," where it is stated that paraldehyde "begins to congeal to a clear crystalline mass at 50° F. (10° C.)." While it is very desirable to exclude impure paraldehydes, of which there are many and to spare in commerce, all of them congealing very much below 10° C., we question if absolute paraldehyde congeals before it is cooled to 4° C. In fact, 10.5° C. is the melting-point of paraldehyde, and the German Pharmacopœia is precise when it says it "should not melt under 10° C." Have the Pharmacopœia authorities not blundered in their translation, or do they consider that the word "begins" will save them? The tests given for phenacetin are substantially the same as those of the German Pharmacopœia; but here, again, we have evidence of carelessness. The bromine test being used for the detection of acetanilide; it is quite sufficient for this purpose, but our Pharmacopœia



authorities have determined to make sure of it, by adding the iso-nitrile test. We will not be so uncharitable as to suggest that the committees were not aware of this.

The only remaining synthetic medicines in the "Additions," are phenazone and sulphonal. As pointed out last week, the characters and tests given for these are similar to those of the German Pharmacopœia, but they also closely resemble the descriptions given in "Helbing's Pharmacological Record." Perhaps this similarity could be observed in the characters and tests of some of the other synthetic bodies. We observe that the compilers have adopted the Dutch melting-point for antipyrin ( $110^{\circ}\text{C.}$ ) in preference to that of the German Pharmacopœia ( $113^{\circ}\text{C.}$ ). The mercaptan test for sulphonal is peculiar to the group of bodies to which it belongs, and does not really prove that it is diethylsulphon-dimethyl-methane—indeed there is yet no test which will do that satisfactorily. The red colour formed on the addition of ferric chloride to the acidulated residue is due to the formation of ferric thiocyanate. It will have been gathered from what has been stated that the Pharmacopœia Committee do not appear to have been quite at home with the synthetic remedies; they have taken a great deal upon trust. It remains to be seen how far they have exercised individuality in other parts of the Additions.

### THE LAW OF SALE.

LAST week his Honour Judge Chalmers, the judge of the Birmingham County Court, read an interesting paper before the Institute of Bankers in London on the Codification of the Law of Sale. Mr. Chalmers has drafted a Sale of Goods Bill which Lord Herschell introduced into the House of Lords two years ago with the view of making it known to the commercial community, and it is likely to come before the Legislature again next year. The interest of such a measure to the men of *£ s. d.* is not very immediate, and we should have thought the learned judge could have found other bodies—Chambers of Commerce, for instance—whose support and criticisms would have been of more value than the perfunctory approval which he secured from the bankers. But it was explained that the lecturer and his audience were old friends, as he was the author of the Bills of Exchange Act of 1882, itself a codifying statute, prepared at the instance of, and promoted in Parliament by, the Institute of Bankers.

The disposition on the part of our law lords to codify special sections of the law is worthy of the utmost encouragement. We are all assumed to know the law which affects us. If it were all laid down in enactments this would be a difficult but a possible attainment; but as the construction of statutes and the formation of the common law has been developed by centuries of judicial practice, and is to a large extent unwritten, certainty in regard to almost any question is scarcely realisable. Almost every continental nation has an authoritative commercial code, and Judge Chalmers says he has been astonished in France to find how familiar ordinary persons are with the law which concerns them. "Ordinary persons," we may remark, are people who are not lawyers, and it is always a little surprising to anyone in that or any other profession to find that people outside it can know anything about its mysteries.

Judge Chalmers says very truly, "Legislation is cheaper than litigation, and less trying to the temper." In his own court, he tells us, there is an annual average of 30,000 cases arising out of contracts of sale. Of course there is nothing like this number contested, but there is a certain proportion

the points of which would not be doubtful, as they now are, if the law affecting them were clearly codified. When the law is unmistakably defined, people adjust their conduct in accordance with it, and avoid contests the result of which cannot be in doubt. This is the case for codification. It is essentially a benefit for the public to demand, for, as Mr. Chalmers says, "politicians naturally take but little interest in non-party measures backed by no outside pressure, and lawyers as a rule look on codification with the same pious shrinking as that with which an orthodox doctor would regard a medical prescription written in English instead of in dry Latin."

A little gem of codification was produced in the last Parliamentary Session in the Partnership Act. In that, for a few halfpence, anyone can ascertain with precision the bearings of English law on partnership. The Bills of Exchange Act is another admirable specimen of such useful legislative labours, and we are quite prepared to applaud the Law of Sale Act also when it gets through. As now drafted it consists of sixty-eight clauses. On what principle of limitation the author has worked we do not know. Evidently he does not touch offences at all, or such statutes as the Sale of Food and Drugs Act, the Acts dealing with the sale of poisons, of explosives, of margarine, &c., would have to be included. But we find, besides, that the Bill does not cover a great many of the questions continually being submitted to civil courts. For instance, the frequently recurring difficulties in respect to commissions are not touched, while the often-disturbing effect of trade customs does not seem to be allowed for in translating common law into a statutory expression. Moreover, many of the sections of the Bill are necessarily only indicative of the impossibility of defining the law—as, for instance, the supply of "necessaries" to an infant, what is a "reasonable" time within which goods should be delivered after ordering, and what was the intention of the parties to a contract when they made it. Obviously the intention of the parties, the reasonableness of a delay, and the necessity of certain supplies can only be decided upon in view of the special circumstances of a particular case. But notwithstanding these difficulties much remains in the Bill which it is of importance that all traders should know. We gave a general summary of the Bill when it was read a second time in the House of Lords in 1889 [see *THE CHEMIST AND DRUGGIST*, May 25, 1889, page 728], and in this number we commence the publication of the codified Bill drafted by Judge Chalmers.

It is to be understood that the Bill as drafted is only intended to represent the law as it stands, not as it may be thought by some authorities as it ought to stand. For instance, the first part of clause 5 is a reproduction of the celebrated operative clause of the Statute of Frauds, passed in the reign of Charles II. This is one of the few pieces of statutory law which govern the law of sale, and the best legal authorities are of opinion that it might be repealed with advantage. Judge Chalmers says in his experience he has found that the Act is sometimes used to defeat an honest claim, but that it seldom or never interferes with a fraudulent one. If this or any other Act is to be repealed, however, it must be done consciously by the Legislature, and cannot be done by a codifying Act.

The Bill as drafted does not apply to Scotland, but it is hoped that when it comes before Parliament the legal representatives of both countries will be able to adjust their different ways of looking at commercial law, so as to secure the advantage of a single enactment applying to the whole kingdom.



## MEXICO AS AN EXPORT MARKET.

A FEW weeks ago we gave an abstract of a consular report on the trade of Mexico during the past year. It was there shown that, so far as the drug business is concerned, we are lagging miserably behind the efforts of the French and Germans to secure a share of the custom of that rich and prospering nation. It is true that the customs duties on drugs and chemical products imported into Mexico are exceedingly heavy, and this fact, no doubt, operates somewhat against the expansion of the trade; but the obstacle applies to our competitors quite as much as it does to ourselves. Yet the French, Germans, and Americans together contrived last year to sell about 103,000*l.* worth of drugs and chemicals in Mexico, while only a paltry 13,500*l.* fell to the share of the Britishers. The causes why we are so behindhand in our Mexican trade are not far to seek, but at the same time they are by no means irremovable. In the first place, there are many more French than, and probably at least as many, Germans as, Britishers in Mexico; the steamship communications between France and Germany and the ports of Vera Cruz and Tampico are exceptionally good; our Continental rivals are generally admitted to be giving themselves much more trouble than we do to suit Mexican buyers in the matters of currency and weight, terms of credit, and readiness to ascertain and respect the peculiar requirements of the country; and, finally, Britain has only within the last two or three years sufficiently recovered her equanimity over the execution of the Emperor Maximilian to renew diplomatic relations with the Republic, or, in fact, condescend to recognise her officially as an organised nation at all. How much we have lost indirectly through this prolonged huff (the execution of Maximilian took place as long ago as 1867 and was as well deserved an instance of capital punishment as ever was meted out to a filibustering adventurer) we shall never know; but so much is certain—that, when our traders again wake up to the importance of Mexico as a market, they will have a tough struggle to oust the French, who have been consolidating their Mexican trade for the last twenty-five years, and the Germans, who are irrepressible in the ancient dominions of Montezuma as in every other spot on earth. The backwardness of the British drug trade in Mexico is strikingly illustrated in a letter which we have just received from one of the proprietors of this journal, Mr. O. V. Morgan, M.P., who is now travelling through the Republic. Our correspondent, who writes from Mexico City, says:—The drug merchants in Mexico are, to a very large proportion, of German and French nationality, and it will, therefore, create no surprise that most of the drugs sold here are imported from Germany or France. The United States have also a fair share of the trade, particularly in patent medicines, but English goods are sold to a very small degree only. Holloway's pills and Pears' soap are well known; but English patents other than Holloway's are hardly ever met with, although, if properly introduced, a good demand could doubtless be created for most of the leading articles, particularly if they were placed before buyers through the medium of striking illustrated advertisements. English perfumery is unknown; but the best makers could easily secure a fair share of the market. Brushes come chiefly from France, and in this department again there is a good opening; so there is for most classes of sundries. Surgical instruments are another line which is now chiefly supplied by France.

Druggists in Mexico deal in every article imaginable, more or less connected with the trade. The stocks held are uniformly large, as the time required to receive goods from Europe is between two and three months. The drug

trade in Mexico is a prosperous and important one, and there are a large number of wholesale firms of the highest standing and importance, not only in the capital but also in Vera Cruz, Guadalupe, and other towns. One or two travellers for English houses regularly make the tour of the principal centres, and one of these, from a well-known London firm, is reported to be now on the way hither for an unusually extended visit.

The Universal Drug Company of Mexico City are building a new warehouse and shop, which, when completed, will be one of the largest and most handsome establishments of its kind in the world. The company sell at retail, in addition to having one of the largest wholesale trades in the country, "It should not be overlooked," concludes our correspondent, "that since the recent railway extensions Mexico has made most extraordinary progress, which is almost certain to assume very much larger proportions yet in the near future. At present the country enjoys great prosperity, and offers a growing and sound market for British goods; but, without energy on the part of manufacturers and wholesale houses, it is not to be expected the trade can be secured."

The railway extension to which Mr. Morgan refers was virtually begun only about ten years ago, but various complications retarded its progress until 1885. At present there are no fewer than three main lines connecting Mexico with the United States, the principal cities of the Republic are all brought in more or less direct communication, and the steel bands of modern locomotion which will connect the Gulf of Mexico with the Pacific Ocean are nearing their closing link. Railways are even more necessary in Mexico than in most other countries, for there are scarcely any navigable rivers in the Republic, and the carriage roads are generally of the worst description, traffic being, moreover, much impeded by the mountainous character of the country. Even more valuable than its woods and the crops yielded by the fertile soil of Mexico are the mineral riches of the country, which are practically boundless. Some idea of the extraordinary growth of the Mexican mining industry can be formed from the fact that between April, 1887, and September, 1888, no fewer than 2,110 new mining concessions were granted, while a capital of over \$30,000,000 is already estimated to be engaged in the mining industry, and this notwithstanding the circumstance that ever since—nearly four centuries ago—Cortez first entered the City of Mexico as the guest of Montezuma, the mineral wealth of the country has been subjected to an uninterrupted and wasteful drain.

## COMMENTARY.

CHEMICAL SOCIETY.—For many years it has been a pretty sure thing for anyone to be elected a Fellow of the Chemical Society provided five fellows could be got to sign the certificate of the applicant; and, in consequence, many have recently been elected who could make no claim, either by education or personal work, to the distinction. A section of the fellows has recently resented this strongly, and a determined effort has been made at the last few meetings to weed out the weaklings. For instance, at the meeting on November 20, 10 out of 26 were blackballed when the ballot was taken, while last week 46 candidates came up for election, and 14 were rejected. Many of those who have been thus treated are pharmacists or brewers.

A LESSON IN SURGERY.—Dr. Wm. Taylor, of Edinburgh appears to be a candid man. He was telling the Medico-Chirurgical Society recently about a conversation he had with an ovariotomist friend who used a double silk ligature



for tying the pedicle of the ovary before removal of the latter. "And what becomes of the ligature?" asked Dr. Taylor. "God knows," was the reply. "It never gives me any trouble." This startled Dr. Taylor, and for some time he has been looking after the ligatures, as he suspected that they be the cause of trouble following ovariectomies. The paper to the Medico-Chirurgical Society is the result. In the course of it some facts are recorded which are simply a disgrace to our civilisation. In the first case mentioned the patient had suffered from menorrhagia; ordinary medical treatment did not relieve her, and the man whom the ligatures did not trouble was consulted, and "at once recommended deligation of both ovaries as the only treatment likely to succeed. This was agreed to. The operation was performed. *Both ovaries were healthy*; both were removed, and the ligatured pedicles were dropped back into the abdomen. The patient recovered from the operation. Nine years have since elapsed; . . . she is still an invalid. Her intended marriage was broken off in consequence of the mutilation she had undergone, and thus possibly the real cure of her misery has been withheld. . . . The question naturally arises, Have the embedded ligatures anything to do with this continued ill-health?" The next case was a lady from abroad, with a left ovarian tumour. The same ovariectomist "decided to remove it. This was accomplished at Christmas. The stump was carefully cauterised, and returned to the abdomen. He then examined the right ovary, and found it healthy. *He was in an operating humour. He examined it a second time, and said that, in order to make sure that it should not be the site of future disease, he would remove it.* He applied a double silk ligature, removed the ovary, and allowed the ligatured stump to drop back into the abdomen." This patient recovered, but suffered for several years from uterine trouble, and finally died, the pathologist reporting "that the irritation round the ligature [of the right or healthy ovary only] appeared to be the starting-point of an irritation which acquired, if it did not originally possess, malignant characters, and led" to the death of the patient. All this is reported at length in the *Edinburgh Medical Journal*. The only thing we regret is that the name of the gentleman who operated is withheld—and well it might be considering the manner in which he exercises his skill on suffering womanhood.

HOW THE FAIRFAXES WERE PHYSICKED.—We have previously mentioned that Mr. George Weddell, of Newcastle-on-Tyne, was preparing for publication a facsimile of an interesting old manuscript which had been discovered among the records of his firm, and which he had reason to believe had been compiled by some of the Fairfax family previous to the Commonwealth. This book is now ready and will be issued to subscribers about the 20th inst., under the title of "Arcana Fairfaxiana; or, Ye Apothecarie his Booke." Mr. Weddell has lately sent us advance sheets of his introductory notice and specimen pages of the facsimile. The original manuscript was found, it appears, among a quantity of lumber in the possession of his firm (Mawson Swan, & Weddell), which had descended to them from their predecessors, Messrs. Gilpin & Co. It was a leather-bound volume, stamped on the cover in gold with the initials "M. C.," and contained a large quantity of medical and household recipes in various handwritings. Having rescued it from destruction, Mr. Weddell set himself to trace its history, and to discover the identity of "M. C." He gives an interesting narrative of his patient labours at the British Museum and elsewhere, comparing handwritings and otherwise tracking the numerous ladies and gentlemen who seem to have contributed to this family collection. We can only

hope that the recipes, when we see them in full, will prove to be of sufficient value to justify the pains Mr. Weddell has bestowed upon them. However this may be, we think he has proved that the first owner of the book was either Margaret Cholemlay, wife of Sir Henry Cholemlay, of Whitby, or of Mary, her daughter, born in 1593, and who in 1626 married the Hon. and Rev. Henry Fairfax, son of the first Lord Fairfax, of Denton, and uncle of the Sir Thomas Fairfax who, as commander-in-chief of the insurgent forces at the time of the Civil War, made the family famous. Mr. Weddell gives the subsequent history of the book for the better part of two centuries, but omits to tell how it found its way to the firm from whom he has himself inherited it. The recipes contained vary from one "to make a bath for melancholy," to another "to make puffed paste." We should expect the latter class to yield the most interesting information. Mr. Weddell has had the whole of the book reproduced in facsimile out of tender regard for hookworms, who, he thinks, will prefer it in proportion to the difficulty of deciphering it; and by adopting this course he has incidentally given us a valuable series of specimens of styles in handwriting during two centuries of our history. He offers this reproduction at 12s. 6d. to subscribers before issue, or at 21s. after publication.

#### EXPERIENCE OF ASSISTANCIES.

BY A PHARMACEUTICAL CHEMIST.

AFTER a five years' country apprenticeship, I passed the Major at twenty-two, and was ready for my first assistantship. This, with a salary attached, is far more conducive to self-importance than receipt of papers of qualification. Not that the work will vary so much from one's last year's apprenticeship's, but one feels oneself enrolled amongst the world's workers, and that one must now be proved worthy of one's bringing-up. I give my experience in the order of the towns whereat I resided.

Dublin—one of the best business-towns in the kingdom—first held my services at 45l. per annum. It is to be noted that, in the distribution of medicines, the distinction between suppliers and prescribers is sharply drawn in the Irish capital. The pharmacist is a recognised, appreciated factor, and his knowledge of the quality, best mode of administration and manipulation of drugs, is fairly recognised. The medical profession admit this, and their patients would as soon expect medicine from their doctors as stationery from their lawyers. Hence we find apothecaries' halls, pharmacies, and medical halls dispensing one hundred prescriptions a day—several, indeed, nearer two hundred. These establishments are large and well-conducted. The principals in the establishment I was in were gentlemanly, business-like men; while the assistants—mostly Irish—worked together in mutual good-fellowship, and, as I thought, with higher claims for their calling than those in England—a virtue not to be despised.

The retail and dispensing departments in Dublin pharmacies are kept distinct, an assistant being engaged for one or the other. As a rule, Irishmen are chosen for the dispensing-counter, and Englishmen for the retail. Slowness of despatch was noticeable, to be accounted for perhaps by the extremely long rounds of delivery.

A point of importance is to be noted—viz., that most assistants work at the same time for medical degrees. For this purpose most establishments allow a couple of hours out every other morning, which is utilised to attend a class or hospital; whilst evening duty would occur but once a week, and two nights off at 6 P.M., and the remaining three about 7 or 8 P.M., thus giving ample time for good work. The attractions of Dublin for spare time may be mentioned. The theatre has always a good play on its boards; the school of art will attract the artistically-inclined; the cathedrals and churches are architectural models of style; the hotanical gardens of Glasnevin are adapted for the study of medicinal plants; the parks and outskirts of Dublin



afford breathing-space and scenery to the heart's content. The Y.M.C.A. chess-room in Dawson Street was a favourite resort with me, and the best plans of attack on the ramparts of many counters were schemed out over the chess-boards here. As you value existence, young man, learn chess!

After twelve months in Dublin—the stores and cutters being then all the talk in the drug world—I determined to see their mode of action. My experience with the latter was not happy, and soon I had had enough of them. Long hours, unqualified men in responsible posts, work ill done, the profession sunk, and the amount of cash in the till the main object, made existence unbearable. Nevertheless, they supply a want. Bad as the work is, it is better done than in the dispensaries and some hospitals. There are crowds of needy people who would gladly throw over hospital and dispensary accommodation of advice and physic if the price of common medicaments were within reach, as well as another lot of well-to-do people temporarily short of money, perhaps, to whom the difference between 10*d.* and 1*s.* 6*d.* for a mixture is a serious matter. These must be catered for, and will eventually, I believe, prove a little mine of wealth to the chemist. Then there should not be forgotten the innate instinct of self-cure, which exists in poor and rich alike.

Liverpool next held my services for the space of twelve months—rather more—at a slight rise in salary over the Dublin engagement. First-class pharmacies are singularly few in Liverpool—many less in comparison with Dublin. But really useful “family chemists”—not in any way to be rated as having inferior grades of pharmaceutical ability—abound throughout most parts of the city and suburbs, far outnumbering their belikes of Dublin. A physician's prescriptions have therefore in Liverpool the chance of being distributed amongst a greater number of chemists than in Dublin; and hence we do not hear of the daily file of Liverpool chemists reaching the figures of their Dublin brethren. The golden rule of manufacturing as much as possible on the premises is adhered to in many cases, and brings its own reward. Assistants will find here ample opportunities for undertaking a course of lectures on any subject of the examination—either singly or a full course. I know by this time what long hours mean, and my advice is strongly, if in business, take out one, or at most two, subjects at a time; read your lesson well each night, and think it out at every spare moment of the day. The hotanical gardens at Fairfield will be found of service. A capital experience is obtainable in Liverpool, and will lay the foundation of a useful life.

Newcastle-on-Tyne, in spite of some brilliant exceptions, is not well represented pharmaceutically—easily accounted for by the paucity of prescribing doctors, or rather by the multiplicity of prescribers and dispensers in one. Six dispensers were engaged by one firm of doctors. The only path out of this difficulty for the chemist is to become, at all events, the supplier of the doctor's drugs. And this is done by several of the leading firms at prices exactly on the lines of the wholesale houses. The North of England Pharmaceutical Association provides tuition in all subjects, and, though a young association, can already show good results. A more hearty co-operation of masters in regard to shortening hours and allowance of time to their juniors would go far to establish the association on permanent grounds. It is perhaps not well known to the young assistant that the whole of the North of England, with the exceptions of the seaside resorts, Liverpool, Manchester, and very few other towns, affords little or no practice in dispensing. In all manufacturing towns the masses are now so wedded to the system of advice and physic thrown together that it is hopeless to attempt to alter the state of things. The same habit is, I know, the rule in other parts of the kingdom, but nowhere, I think, to such an extent as in the North.

The ancient city of Chester has the reputation of being one of the best drugged cities in the country. It has adopted certainly the best system of the doctor prescribing and the chemist dispensing, and the result to the patient is, I am convinced, to his great advantage. Here I had the pleasure of working for several years, and nowhere have I seen such good, neat, and responsible work, commanding at once the appreciation of doctor and patient.

Further than this I cannot go at present, but these notes may be useful to some who are wondering what part of the country will claim their services as assistant pharmacists.

## Scientific Notes:

*On Chemistry, Pharmacy, Botany, Materia Medica, &c.  
Original, Selected, and Translated.*

### OIL OF LYCOPodium.

LYCOPodium yields on treatment with ether about 48.5 per cent. of fixed oil closely resembling almond oil. Bukowski has analysed the oil, and finds that it consists mainly of oleic acid (80 per cent.) with 3 per cent. of arachic, palmitic, and stearic acids, and the proper proportion of glycerol; but there are also 2 per cent. of lycopodic acid ( $C_{18}H_{34}O_4$ ) and 0.3 per cent. of phytosterin, or vegetable cholesterol, first found by Hesse in Calabar bean. Lycopodic acid occurs in monoclinic tabular crystals, melting at  $91^\circ$  to  $92^\circ$  C. It is an isomer of dioxystearic acid.

### ESSENTIAL OIL OF SENEGA.

LANGBECK, about ten years ago, obtained from senega root 0.225 per cent. of an essential oil having the characters of oil of wintergreen; and in 1883 L. Reuter also obtained quantities of the oil—0.28 per cent. from the southern and 0.25 to 0.33 per cent. from the northern. He had no difficulty in proving that the oil was a salicylic compound. On examining the false or white senega, the root of *Polygala alba*, Reuter obtained evidence of only traces of the oil, while a Japanese senega, obtained of Professor Shimoyama, and probably the root of *P. tenuifolia*, did not contain a trace. Dr. H. C. C. Maisch reported at the American Pharmaceutical Association meeting that he had obtained from Mr. Theodor E. Melter, of Jacksonville, Florida, some specimens of *Polygala Baldwinii*, which was stated to be a powerful diuretic, and to have a strong odour of oil of wintergreen. The air-dry herb showed evidence of 0.08 per cent. of ethereal oil, which, as far as the small quantity obtained and the tests could show, was identical with what Reuter had obtained. Dr. Maisch will, however, examine more of the plant, as well as other *Polygalas*.

### THE AMOUNT OF ASH IN ASAFETIDA.

MR. W. A. PUCKNER, of Chicago, reported to the American Pharmaceutical Association on the amount of sand present in commercial asafetida. Reference books are at variance regarding the amount of ash which asafetida should yield. The British Pharmacopœia says 10 per cent.—the new German 6 per cent.; but it will be seen from the subjoined results that commercial specimens in America are far from being equal to this. Is the drug in the English market better in quality?

	Soluble in Al- cohol	Total Ash	Insol- uble Ash (earth clay, sand, &c.)	Alum- ina and Iron	CaO.	MgO.	SO <sub>3</sub>	CO <sub>2</sub>
No. 1 in mass....	59.49	19.45	2.32	1.16	7.12	1.14	8.57	1.09
No. 2 " ....	27.39	66.03	1.37	.42	25.07	2.03	20.49	10.78
No. 3 powdered..	44.48	38.59	2.36	.68	16.57	1.39	16.18	5.32
No. 4 " ....	33.47	47.86	1.95	.60	18.85	.42	23.51	2.62
No. 5 " ....	31.35	55.38	21.36	2.57	9.91	6.49	8.96	4.25

### DETECTION OF TRACES OF HYDROGEN PEROXIDE.

MR. THOMAS FAIRLEY mentions in the *Chemical News* that as little as 10 centigrammes of hydrogen peroxide can be detected by the following method:—To 5 c.c. of a 0.005-per-cent. solution of  $H_2O_2$  in a test-tube, add 1 to 2 c.c. of ether, and then a small drop of chromic acid by means of a small, pointed glass rod dipped in a 10-per-cent. solution of the acid. Shake up, and allow the ether to collect, when the blue due to the solution of the perchromic acid in ether is distinctly visible, especially against a white ground. If thought necessary, the yellow aqueous liquid can be screened from the eye by means of a sheet of paper held so as to leave the ether alone visible.



## OUR TOWN TRAVELLER.

## CHRISTMAS AND WINTER TRADE

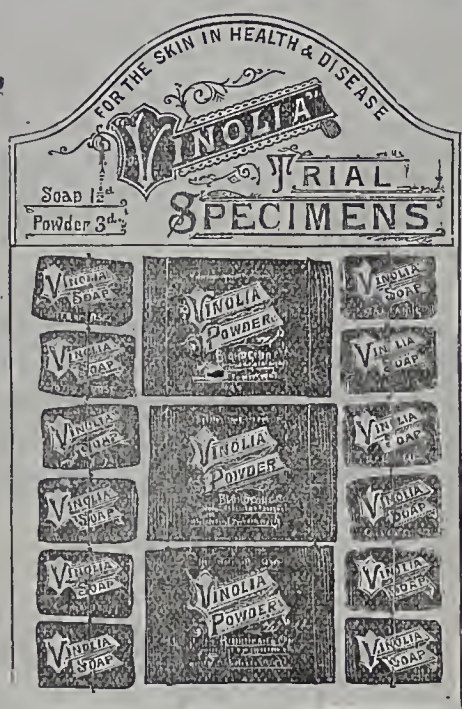
was the idea of our traveller's errand when he called on most of the leading houses the other day, but he had an eye to business generally, and in the course of his wanderings picked up a few bits of information which are worth recording. As to business as a whole, let it be said at the outset that it is exceptionally good. Everyone seems much in the position of

BOURNE, JOHNSON & LATIMER,

when our traveller called, at 34 Farnival Street. There he learnt from Mr. Johnson that business is brisk both in the home and export departments, and all home customers want to be served first—a thing which is sometimes difficult of execution.

BLONDEAU ET CIE.

Calling at the Vinolia works, our representative was cordially received by Dr. Burrows and Mr. Hartridge, who represent Blondeau et Cie. in this country. They said they had a most important novelty to bring before the trade. They were, in fact, at that moment drawing up the advertisement about it, which appears on another page. Then they showed a very stylishly-produced card of delicate silver-grey tint, with a support at the back so that it will stand in a sloping direction on the counter, and with the words "Vinolia Trial Specimens" in gold letters at the top.



Attached to the card are six sample packets of otto-of-rose vinolia soap, six of balsamic vinolia soap, and three of vinolia powder, all elegantly wrapped in dark glazed paper with gold lettering. The soaps are to sell at  $1\frac{1}{2}d.$  each packet, and the powder at  $3d.$ ; and "we offer to give one of these cards," said Dr. Burrows, with a resigned sort of air, "to any chemist with a parcel of  $2l.$  worth of our goods." Our man expressed, on behalf of the trade, his appreciation of the offer, and murmured some remarks of sympathetic admiration. "It is pretty, isn't it?" said Dr. Burrows, with a tender glance at their latest production. "You can write on a thing like that, can't you? Give us some of your best Homer about it, won't you?"

BOWERS BROS.

Bowers Bros., of 89 Blackfriars Road, are well satisfied with their volume of business, and Mr. Bowers showed us a considerable variety of handbills, calendars, and other work which had been ordered by pharmacists in this country and

abroad. Bowers Bros. certainly put a good many original notions into their work; and their one trouble, so far as our representative could gather, appears to be that their brains are apt to be sucked by their competitors. Nevertheless, they bear this slight inconvenience cheerfully enough, confident that they are destined to be among the fittest who shall survive in the great competitive struggle.

BURROUGHS, WELLCOME & CO.

"We are gradually giving up the perfume business," said Messrs. Burroughs, Wellcome, & Co.'s manager to our traveller. "As you know, we have handed over Ladd & Coffin's agency to a neighbour. You see, our medical and pharmaceutical business still keeps growing, and we require all our room for that." Then, in the course of a brief chat, our representative gathered that the medical diary has been as great a favourite as ever, and the A.B.C. pocket-diary will be ready one of those days—"all of which we shall set forth in THE CHEMIST AND DRUGGIST this week in a 'Christmas presents' page," said Mr. Sudlow. The A.B.C. diary is the one that participators in our last DIARY competition got a copy of from this firm along with a pretty leather pocket-case. "It must be nice to be a competitor," groans our traveller. He also reports, regarding the Snow-Hill firm, that they are introducing ready-made rice-paper cachets to the trade. These are to be sold in small boxes, each box containing a simple closing apparatus and a measure. Of course, chemists will be able to dispense nauseous medicines in these, but patients who care to take the trouble may do that for themselves. One of the departmental managers also explained to our representative all about Prof. Remington's still, for which Burroughs, Wellcome, & Co. are the agents. Here is an illustration of it at work, and that almost speaks for itself. We should think that there is no more compact still than this, and none with so efficient a condenser.



G. B. KENT & SONS.

Mr. Arthur Kent, of G. B. Kent & Sons', the brushmakers of Great Marlborough Street, told our representative that the firm's business in tooth-brushes was growing so rapidly that they were compelled to enlarge that department of their works. Messrs. Kent have just thought of something new in the tooth-brush line, which should attract the attention of chemists on the look-out for a paying line. The success of their best quality brushes leaves on their hands an increased quantity of material not, perhaps, quite up to the mark for the purpose of manufacturing the handles of the highest grade of brushes, but very well adapted for secondary qualities. In order to prevent the accumulation of stock of this class they are now putting up special lines of six 1 dozen boxes of assorted brushes in various degrees of excellence, the trade price for these ranging from  $5s.$  down to  $2s. 6d.$  per dozen. The whole 6-dozen lot are packed in an ornamental box, which is sufficiently bright and artistic to attract attention without erring on the side of over-gaudiness. The system under which Messrs. Kent & Sons group their trade-marks is a rather ingenious one. The best quality of the brushes is denoted by the combined emblems of the three kingdoms—the rose, shamrock, and thistle. Then follows the "Imperial brand" bearing a crown, and denoting the price of  $5s.$  per dozen, the "elephant"—four legs =  $4s.$ ; the "shamrock," three leaves =  $3s.$ ; the "star," seven points, or  $6d. = 3s. 6d.$ , and so on. We noted with regret, and place it upon record as another glaring instance of injustice to Ireland, that the thistle has been chosen as an emblem for a four-and-sixpenny brush, though why that should be so we cannot explain. Messrs. Kent & Sons do nearly all their own printing now, and they showed us some very creditable specimens of work in the shape of calendars turned out by their own press. Mr. Arthur Kent himself was the first in the establishment to master the art and mystery of printing, and he told us that they were indebted to Burroughs, Wellcome &



Co. for many useful hints in connection with this department. In silver-mounted shaving-brushes the firm are very busy just now, and in reference to that article we may place upon record an interesting fact in connection with badgers. The hair of that ill-used sufferer is much sought after for certain classes of brushwork: in some grades it is mixed with a certain proportion of other hair, but in the best class of works, such as the shaving-brushes referred to, badger hair alone is used—the hair from the back of the animal. Messrs. Kent & Sons buy from 2,000 to 3,000 badger skins at the Leipzig fur-fair, where they are brought to market by Polish, Russian, and German dealers. From badgers the conversation turned to elephants, and we then learned that Messrs. Kent never buy their ivory at the great London auction sales, as they find it pays them better to pick out their requirements from the buyers afterwards. Strange to say, while the demand for goods in xylonite and celluloid, the two principal ivory substitutes, is largely on the increase, the sale of real ivory goods is growing in at least the same proportion. We were shown some exceedingly pretty decorated celluloid toilet-brushes, combs, and hand-glasses in two shades, white and cream, to imitate the varying shades of genuine ivory, and some xylonite holders for tooth-brushes, in which the grain and the grooves of old ivory were imitated almost to perfection. A big trade is now done in ivory requisites decorated with Japanese bronze and gold enamelled figures and flowers. These goods are originally made in London, and when ready Messrs. Kent forward them to Japan to be decorated, after which they are returned to this country. The decoration just doubles the price of the article.

For the Christmas season it is surprising how few novelties are really required to make a special trade. For instance, at

#### H. GILBERTSON & SON'S

showrooms in St. Andrew's Street, Holborn—where there is, probably as fine a collection of cut-glass goods as one would wish to see—our traveller had brought before him a few of the things which, added to regular stock and displayed a little more prominently than usual, serve to bring good business at this festive season. One line which has taken particularly well, Mr. Dowell reported, consists of perfume-bottles of Worcester china, beautifully enamelled and gilt, fitted with a glass stopper and capped with silver or gold. These make exceedingly attractive ornaments for the dressing-table, as they are really works of art and the shapes are quaint. The shape our traveller liked best was the pilgrim's bottle shape. These are rather expensive novelties, and have been exclusively bought up by West-end chemists and perfumers. We are sorry that we cannot reproduce one of them for the benefit of our country consins, but, as Mr. Dowell told our traveller that no more are to be had at present, we may have a chance at some future time. This same firm also have a fine show of odorators, which are a perennial kind of present, and, as we have said, their art glass bottles are extremely



varied. One only need we mention, and that is a 2-lb. lozenge-bottle for the counter, cut longitudinally, and with large end stopper, for 3s. There are few who will be able to say what "Stipendium" is, but, judging from the nature of the stuff, it is likely to be heard of by-and-by. It is to be used for making ointment pots and screw caps and stoppers. Messrs. Gilbertson & Son showed our traveller covered pots made from it in terra-cotta colour; they are unbreakable and perfectly impervious to fats, corrosive substances, &c. They look well (as the above figure testifies), and have a rim at bottom and top, the edge being corrugated. West-end houses have taken them up and are using them for postal purposes, and shippers have also bought them largely. In winter goods this firm have a good show, including checked-flannel-covered hot-water bottles and "Nikita" lamb's-wool chest-protectors (plain and lined with silk), while the dispensing-bottle department is brisker than ever.

#### LYNCH & CO.

are very busy, and report good winter business, while their surgical department has been making rapid strides of late.

#### A LOOK IN AT MAW'S

is always instructive, and when our traveller called he was taken straight to the perfumery department and shown some exceedingly cheap lines of these goods, including Boehm's, Sharp's, and other makers' specialties, done up in attractive boxes, for the season. There has been a big run on Christmas-tree perfumes, the favourite being a china bottle or jar gaily decorated in relief; in these the perfume is of secondary importance. One thing of better class and style is a four-cornered, barrel-shaped bottle, in white cut-glass, with flat stopper, filled with the best perfume. This is likely to "go," and has "gone" wherever it has been shown. The general showroom is at present looking quite gay with novelties, amongst the prettiest being the new goods made of celluloid to imitate ivory. The French and Americans appear to be a little more successful with this than English makers are. For instance, there was a puff-box made to imitate "the bark" of ivory. This was perfect in graining and the remains of the brown surface, while the box was so thin and artificially unfinished-like inside as to require close inspection and smelling before it could be pronounced to be artificial ivory. The same remarks apply to all the celluloid goods. Messrs. Maw also exhibit beautiful pilgrim-shaped perfume-bottles made of artistically-enamelled ware, and capped with pure silver and silver-gilt. Our traveller was informed that they are doing a good thing just now with Soxhlet's milk-sterilising apparatus, and the "Gem" show-cards are taking well.

#### JAMES PASCALL.

At Pascall's big confectionery works in the Blackfriars Road all hands are as busy as they can be in executing orders for the winter season. There is quite a run on such specialties of pharmaceutical confectionery as bronchial and linseed tablets, octagon cough-lozenges, and the like. The latter specialty, Mr. Pascall, junior, told our traveller, the firm were wont to sell as "cough-curer," and under that name they enjoyed an unabated reputation for twenty years or more. At the end of that period the Somerset House authorities came down upon Mr. Pascall with an invitation to put a stamp upon the article; and as the manufacturer declined to burden his penny packets with a stamp 150 per cent of the selling price, the name was changed. Mr. Pascall is well satisfied with his business among chemists, though in most cases he prefers serving them through the medium of their wholesale houses. His travellers (he has six on the road) confine their attentions exclusively to the confectionery trade, and he appeals to pharmacists principally by means of advertisements. The "Golden Maltex" was a happy hit; and when first brought out, about two years ago, a rush was made for it, which taxed the firm's producing powers to the utmost. Now the "Golden Maltex" business has settled down to a steady trade, still showing a constant growth, but no longer subject to the almost inconvenient pressure of the first period. The success of the "Maltex" has induced Mr. Pascall to push other preparations of the same series of druggists' confectionery, notably the "Spanex," of which the name to the ingenious mind will readily reveal the principal constituent—viz., "spanish juice." Spanex is a liquorice preparation in the shape of small pellets, and retails in fourpenny boxes. Then there is the "black currant extract," contracted into the somewhat grotesque "bla-cur-ex," and the usual aromatic cachous, lozenges, &c. Mr. Pascall's trade is just now bearing the brunt of the busy season, and quite a little crowd of customers thronged the showroom where samples of Christmas confectionery and sundry other notions pertaining to Mr. Pascall's trade are exhibited. On his way back from that room our town traveller noticed a large pile of small brown honey-jars stowed away in a corner, and was told by Mr. Pascall that the firm use none but English honey in their preparations. Considering the size of these works, and the importance of honey as an ingredient in the confectionery business, a not inconsiderable proportion of the British crop must therefore, we should say, find its way Blackfriarwards.



In the course of his wanderings our town traveller looked in upon

GEORGE PATTISON,

of lung-protector fame, and had a pleasant chat with him in his pharmacy. Those who are old enough to remember can recall the days of the white chest-protectors, which were a perfect heart-break to chemists at the end of a mild winter—they would not, in the circumstances, sell, but had the strongest predilection to soil. It was then, almost twenty-



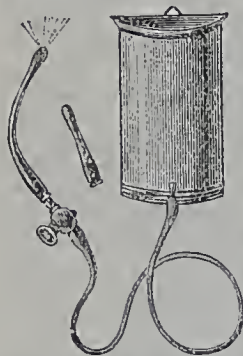
five years ago, that Mr. Pattison originated his red felt, which is made of a very fine, soft wool, and at the same time he designed his lung-protector, a sketch of which in the original shape we show. Other shapes, adapted to American and Colonial business, have since been introduced. Mr. Pattison is satisfied with the volume of business which he has had this season, although there might have been a greater call upon his resources if the weather during the late autumn months had not been so mild and summerlike. As far as the foreign and

colonial trade is concerned Australia and the United States stand first in the manufacturer's eyes, and, notwithstanding the heavy protective duties imposed, the demand still remains good.

F. SCHUTZE & Co.

are exhibiting at their showrooms in Aldersgate Street their novelties in od orators which we recently noticed. When our traveller called this week, he confined his attention to surgical goods, especially the novelties in transparent celluloid, which

is now being largely used for making syringes of all kinds. Its principal advantage is, of course, that it is practically unbreakable, and the apparatus can be made thin and perfectly transparent, so that in that respect it is as good as glass. Another advantage of the use of celluloid is apparent in pessaries made from this article; for instance, celluloid rings are now much in demand by doctors, who, by immersing the instrument in hot water, are enabled to soften it and bend to the shape, thus making a Hodge's or any other pessary of that kind. As showing the applicability of



this kind of celluloid, we figure here a hydrostatic douche, the water-container, pipes, and joints being made of that material.

THOMPSON, WALTERS, HOLE & Co. (LIMITED).

For the past month this firm has been doing good business in plush goods for Christmas trade, one of the most popular articles being a wall-bracket with a pretty Dresden china maiden on one side of it and an oval bevelled-glass mirror on the other. Below the mirror there is a receptacle for a perfume-bottle. The effect is good, and as empty bottles have been supplied with the brackets, chemists have availed themselves of the opportunity to work off their own perfumes. Perfume-cases similar to liqueur-stands have also been taking well, and there has been quite a big demand for leather cases this winter. The firm have cultivated the perfume business with considerable earnestness and for their own brands have adopted a trefoil-pattern bottle such as the figure shown here, putting up the more expensive selections in neat boxes containing two or more bottles. Patterns of these goods, with many others, are exhibited in the new show-room of the firm at Curtain Road, and here one is struck with the business-like way in which the wants of the omnipotent "baby" are catered for. Here, for instance, is "a present for baby"—a brush, comb, puff and packet of dusting-

powder, contained in a neat box. Then we find a whole case devoted to baby-soothers, of which Thompson, Walters, Hole & Co. (Limited) have produced several original designs, some of them literally set to music: and the immensely increased trade in feeding-bottles is shown by the variety and



cheapness of the patterns contained in their showroom. The "Louise," shown above, is a neatly-hoxed flat feeder, destitute of corners, with black rubber fittings—in short, a good *la.* feeder, which can be sold in sympathy with "cut" rates at 9*d.* to yield a good profit. The manager informed our traveller that the season trade has been exceptionally good, especially in chest-protectors and respirators. By the way, the "natural wool" felt has become quite popular now, and most people include some of these in the 5*l.* selection with which this firm give a mahogany counter show-case.

A. W. SHIRLEY.

When our traveller called upon the maker of A1 menthol cones, this time last year, Mr. Shirley was in the throes of a removal to 55 Farringdon Road: when he repeated the call the other day, he got some idea of the changes which a year may make. The cone business is there yet, but there are ever so many new ideas engrafted upon it. For instance, Mr. Shirley took over, a few months ago, the management of the Baby Feeding-Bottle Company, so far as the home trade is concerned, and has been selling their goods faster than they can be produced. The smelling-bottle business has also grown remarkably, and a singular variety of patterns was shown to our traveller; Mr. Shirley at the same time mentioning that he is offering the trade this week a saleable assortment (23*s.* worth) for a sovereign, which some will be able to sell for the better part of a 5*l.* note. Within the past month Mr. Shirley has gone into the perfume business, and has now a staff of girls very busy putting up all sorts, from the 1*l.* sample tube to the richly-ent-stoppered toilet-bottle. A French name being a necessity in this perfume trade, Mr. Shirley is lucky enough to have a family name which has suggested "Etienne Brothers" as the name for his perfumes, and under this they will be sold. The block in the margin shows one of the styles.



H. SILVERLOCK.

When our town traveller called upon Mr. H. Silverlock, of 92 Blackfriars Road, S.E., he heard that the firm were still busy there with the despatch of orders for almanacs and cards for their pharmaceutical friends. The orders for these goods are now of course all booked, but the business of the New Year will be commenced with the execution of orders for medical practitioners' visiting-lists, account-books, &c. Mr. Silverlock is well satisfied with his Indian and Colonial



trade, the latter of which he finds on the increase, in spite of the very heavy duties to which most of his goods are now subjected in some of the Australian colonies and elsewhere. The extent of the firm's business in gummed labels (which the originator of the firm invented now about sixty-five years ago) may be estimated from the fact that the firm's requirements in gum arabic for this department are about 14,000 lbs. per annum.

#### WARRICK FRÈRES.

The premises in Old Swan Lane, E.C., with which the name of Warrick has been associated for more than half a century, reveal their location near the banks of the river by the delightful aroma sent out thence to the neighbourhood. And yet, as the trade well know, the firm do no manufacturing here: all their perfumes are distilled at Grasse, and their lozenge factory is elsewhere in London: but the store of so many sweet things, and the boxing and bottling which are continually going on, account for the fragrant atmosphere.

When our traveller arrived at the spot he was informed by Mr. F. W. Warrick that the exhibit for the Jamaica Exhibition was being made ready. This will consist of a handsome crimson plush and bevelled-glass wall-case containing a selection of perfumes, and when it is placed in position it will be surrounded by the original sketches which were used to illustrate a lecture by Mr. Warrick published in THE CHEMIST AND DRUGGIST a year or two ago. "And how is business generally?" asked our traveller. "Good," was the reply. "We have been very busy with put-up perfumes lately, such as this stoppered bottle with the illuminated label, which we put in a handsome carton. This retails at 2s. 6d., and it contains 1½ oz. of the best perfume." There are many handsome bottles of the class shown by Mr. Warrick, and their labels give them rather a distinctive appearance;



ance; here, for instance, is a figure of a 1s. bottle with one of the floral labels, and on the more expensive ones the decoration is more elaborate but never vulgar. Indeed, Mr. Warrick's artistic taste can generally be relied on, and it has not been better shown than in the "Real" flower-flavoured pastilles. There are few things which have taken so well as these—the names are good, the odours are delightful and the put-up is exquisite. "Real Lavender" is the latest odour, and it goes without saying that they will give the death-knell to the old lavender lozenge, a thing far too big for dainty mouths. The "Real Lavenders" are tiny heart-shaped pastilles of the colour of the flowers, but they are also to be made of the colour of the old-fashioned lozenge.

As a set-off to these pastilles Warrick Frères have lately introduced crystallised violet-flowers and rose-leaves, which are the freshly plucked petals (grown in the sunny south) dipped in a strong syrup and allowed to crystallise. The odour and taste are perfect, and as the sweetmeats are put up in attractive leatherette boxes they have taken very well. Apart from business our traveller reports having seen a number of purely pharmaceutical matters on this visit which he craves space to describe in this issue; but he has already got more than he is entitled to, and he must reserve the rest for another story.

THE will of the late Mr. Walter Dutchman, of 99 Edith Grove, Chelsea, pharmaceutical chemist, was proved at the Principal Registry, Somerset House, on September 14, 1890. The gross value of the personal estate amounted to 165%. The sole executrix and beneficiary was Mrs. Jane Dutchman, the widow of the deceased.

## Gazette.

### PARTNERSHIPS DISSOLVED.

Muriel & Harris, Whitehaven, surgeons.

Oppenheimer, H., Oppenheimer, W., Oppenheimer, G., & Herrlich, J., under the style of Oppenheimer Brothers & Co., Sun Street, Finsbury Square, London, and Paris, druggists and merchants, as far as regards H. Oppenheimer.

Roberts & Jenkins, Felinfoel, near Llanelli, abraded-water manufacturers.

### SCOTCH SEQUESTRATIONS.

M'Geachie, P., trading under the style of Weir & Co., Newton-on-Ayr, chemical manufacturer—December 16, at 12, King's Arms Hotel, Ayr.

### THE BANKRUPTCY ACT, 1883.

#### RECEIVING ORDERS.

Brassington, Aloysius, Crediton, veterinary surgeon.

Davies, Hamlet Lloyd, Llanrwst, late of Holywell, surgeon's assistant.

#### ADJUDICATIONS.

Brassington, Aloysius, Crediton, veterinary surgeon.

Davies, Hamlet Lloyd, Llanrwst, late of Holywell, surgeon's assistant.

Maephail, A. Lamont, Stoke Newington Road, N., doctor of medicine.

#### ORDER MADE ON APPLICATION FOR DISCHARGE.

Pratt, Henry James, York, chemist and druggist—discharge granted forthwith.

### EXTRACT FROM DEEDS OF ARRANGEMENTS.

The following deed of arrangement with creditors has been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act, making any of these arrangements binding upon dissenting creditors.

Riley, Thomas Herbert, Soothill Laue, Batley, chemist's assistant. Dated, November 25 1890; filed, December 2, 1890; unsecured liabilities, 143l. 8s. 6d. Composition of 5s. in the pound payable forthwith.

	£	s.	d.
Atkinson, C. H., Birstall	..	..	..
Mann, J., Soothill	..	..	..
Riley, M. E., Batley	..	..	..

And 10 under 10l.

### NEW COMPANY.

BIRMINGHAM DRY COLLODION PLATE AND FILM COMPANY (LIMITED), with a capital of 20,000l. in 2,000 shares of 10l., has been formed to work the invention of Dr. Richard Norris, known as the rapid dry collodion plate process. Each of the first subscribers takes one share, and they are:—R. Norris, Birchfield Road, Aston, doctor of medicine; R. H. Norris, Albert Road, Aston, Birmingham, doctor of medicine; G. H. Dugard, Vulcan Rolling Mills, Birmingham, metal manufacturer; W. H. Dugard, Vulcan Mills, Birmingham, metal manufacturer; B. S. Norris, Birchfield Road, Aston, medical student; H. L. Dugard, Heathfield Road, Handsworth, widow; and W. J. Oakel, Alma Street, Aston, Birmingham, manufacturer. Registered without articles of association.



## Trade Report.

*Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.*

*It should also be recollected that for many articles the range of quality is very wide.*

42 CANNON STREET, E.O., December 11.

**DRAWBACK ON EXPORTED SPIRITS OF WINE.**—Mr. Thos. Tyrer, Chairman of the Chemical Committee of the London Chamber of Commerce, writes us under date 8th inst.:—As some doubt existed as to whether a general order had been issued by the Inland Revenue authorities with respect to the exportation of spirits of wine with medicinal tinctures under the general orders of November 20, 1888, and March 23, 1889, I take this opportunity of informing you that the Inland Revenue authorities did issue a general order on September 10, 1890, in the following words:—

### SPIRITS OF WINE EXPORTED WITH MEDICINAL TINCTURES.

In future spirits of wine will be allowed to be exported with medicinal tinctures in quantities not exceeding two gallons in any case or package, and drawback thereon will be allowed. The special allowance of 4 per cent. for waste is, however, to be withheld in the case of such spirits.

This general order was confirmed by one from the Customs, dated September 11, 1890.

I may remind you that the application of the Committee for the exportation of compound spirits of chloroform and spirit of chloroform was not acceded to; nor have any replies been received as yet respecting the one shilling minimum and the other points raised.

The chairman solicits opinions of the trade on the working of the several general orders relating to the exportation of medicinal spirits, and with suggestions of any charges still considered desirable to render the working of those orders as efficient as possible consistently with conservation of the Revenue.

**THE QUININE-RING NEGOTIATIONS.**—Reports have lately been current, and have been referred to in our trade report upon more than one occasion, of a projected combination among the manufacturers of quinine. With a view of arriving at such an understanding a meeting took place at the Hôtel Westminster, in Paris, on Wednesday, December 10. All the manufacturers, French as well as foreign, were represented, and after a prolonged discussion it was agreed to adjourn the meeting for the present, no final decision being arrived at. It is thought that several further meetings will be held before the difficulties in the way of a combination can be satisfactorily smoothed over, if, indeed, it should be at all possible to arrive at an understanding.

**THE POSITION IN MINCING LANE.**—For many of those engaged in Mincing Lane business, the closing weeks of the year are not likely to be particularly cheerful. There are many ugly rumours about again of embarrassments caused by shellac speculations, and the close of the present week is looked forward to with much apprehension. So far as present indications go, there is no prospect of any improvement in the position of shellac during the first quarter of the coming year, and several of the "bulls" who operated so confidently until a few weeks ago are not at all unlikely to find themselves much pressed before the critical period is passed. The names of one or two firms whose position is regarded as being the reverse of stable have been more than whispered in the sale rooms and on 'Change for some days, but thus far nothing definite has transpired with regard to their position. It is generally known, however, that at the end of last week a

firm which had only commenced operations recently had to summon a meeting of its creditors. What was decided on that occasion has not transpired.

**THE NEXT DRUG SALES.**—While offering some of his goods for sale, Mr. Figgis announced at to-day's drug sales that there had been a general request by continental gentlemen that the next sale might be fixed for January 8, and that date appeared to find favour with the room—at any rate only one voice was raised against it—viz., that of Mr. Ziegele, who appeared to interpose not so much for the purpose of suggesting an alternative as in order to inquire who the foreign gentlemen were from whom the general request emanated. The name of only one firm was given by Mr. Figgis in reply to this query, and Mr. Ziegele thereupon corrected the broker's statement that the request had been a general one—an observation which led Mr. Figgis to retort that it was no use prolonging the argument, as everyone was aware that whatever might be proposed, Mr. Ziegele would get up to oppose it.

**ACIDS.**—*Citric* is dearer, and none can now be had below 1s. 4½d. per lb. on the spot, while others are holding for 1s. 4½d. per lb. *Oxalic* quiet at 3½d. per lb. *Tartaric* remains very quiet at 1s. 2½d. to 1s. 3d. per lb., according to brand and position.

**ALOES.**—The *Cape* variety was represented by 60 cases, which sold at somewhat lower rates, say a decline of about 6d. per cwt. for the better grades: Good, bright hard, 20s. to 20s. 6d.; fair, 18s. 6d. to 19s.; partly drossy, 15s. For *Curaçao* aloes there was no demand whatever. One hundred and fifteen packages, catalogued as *Barbadoes*, were also brought in, with the exception of 15, which sold without reserve: Fair, brown liver, at 24s. to 30s.; common, at 12s., per cwt. Of *East Indian* aloes, nine packages Zanzibars sold readily; good, hard orange, in skins, at 5l. to 5l. 5s.; soft and sour, but good colour, in tins, from 5l. up to 67s. 6d.

**AMBERGRIS.**—Several lots were offered to-day, one or two small packages bringing very high prices. For 1 oz., light white chalky, of fine flavour, 172s. 6d. was paid, and 170s. was realised for another fine parcel; good quality, but somewhat dark, brought 122s. 6d. per oz., and fair flavoured to ordinary black, sold at from 85s. down to 35s. per oz.

**ANNATTO.**—For 50 bags good red seed from *Ceylon* 2½d. per lb. was refused. Twelve baskets *Pará* roll annatto were offered; they were of fresh import, but the quality was common and mouldy. After some bidding 9d. per lb. was realised for the lot.

**ARSENIC.**—Twenty-eight barrels of powdered white were offered without reserve, and after some competition declared sold at 13l. per ton, "pocket order."

**BENZOL.**—The market for this article is in a singular position. For delivery over the first half of 1891 90 per cent. has been sold at 4s. 7½d., while for the second half of the year 4s. 7½d. is nominally asked, but there are no buyers over 4s. 5d., and it would probably be possible to secure contracts at 4s. 6d. On the other hand, there are sellers for delivery over the whole of the year at 4s. 6d., which shows that there is at least a substantial doubt as to the soundness of the position of the article for some months ahead. It is stated that some of the principal English aniline manufacturers are combining to depress the price of benzol.

**BUCHU.**—Fine green leaves are still very scarce. The 10 packages imported last week, 8 of which proved to be sound leaves of fine colour and flavour, while 2 were more stinky, came up for sale to-day. For one lot 5d. per lb. was offered, but the broker wants 6d. per lb. for the whole parcel.

**CALUMBA.**—Only 59 packages were offered, of which 18 sold at from 11s. 6d. to 18s. for ordinary grey to yellow mixed sorts. Good yellow calumba, small to bold, slightly wormy is held at from 30s. to 35s.

**CARDAMOMS.**—The 160 packages offered at to-day's sales included some exceptionally fine fruit, for which very high prices were paid, one lot realising fully 4d. above the value.



tion. Medium qualities were well maintained in value. Ordinary cardamoms steady, occasionally perhaps a little cheaper. Altogether 53 packages sold at the following prices:—*Ceylon-Mysore*: very fine medium to bold plump pale, 3s. 7d.; medium soft pale, 3s. 2d.; good medium to bold yellowish but small ditto, 2s. 5d. to 2s. 2d.; medium to bold long yellow, 1s. 9d. to 1s. 11d.; small ditto, 1s. 4d. to 1s. 5d.; brown partly split and specky 1s. 1d. to 1s. 3d. per lb. *Ceylon-Malabar*: medium to bold long full pale, 2s. 7d.; small round yellow, 1s. 4d.; common and very small ditto, 11d. per lb.; fine wild *Ceylon* realised the very high price of 2s.; common ditto brought 9d. per lb. *Seeds* sold at 1s. 7d. to 1s. 8d.

**CASCARILLA.**—Of 67 packages only 8 sold at 31s. 6d. per cwt. for small to medium fair quality; for the rest, rather ordinary and more or less damaged, 22s. was refused—the price named being 25s.

**CASTOREUM.**—The annual public sale of castoreum imported by the Hudson's Bay Company took place on Wednesday. The total quantity offered consisted of about 1,800 lbs., which were all disposed of at about last year's auction prices to a decline of 6d. per lb. on first quality; while second and third grades sold at irregular rates, but generally at from 1s. 6d. to 2s. per lb. advance; and pickings were well competed for at an advance of about 2s. to 3s. per lb.

**CINCHONA.**—The assortment of South American cinchona offered to-day was exceedingly poor, and the only sales of any importance consisted of about 25 packages *Guayaquil*, at 1s. 3d. for good stout mossy quill, 9d. to 1s. for broken silvery chips to fair split quill and chips, and from 6d. to 8d. for rusty quill. This is a decline of 1d. to 2d. per lb.

**CIVET.**—Eleven horns all sold—10 very small ones in one lot at 6s. 6d. per oz., and the remaining one, without reserve, at 6s.

**COCA LEAVES.**—The only lots shown in to-day's sales were 2 packages *Ceylon* leaves, good bold dark Huanoco character, undamaged, which sold for 5½d., and 9 packages *Java* leaves, very small, badly cured, brown and mouldy, which were bought in at 6d. per lb. for the best.

**COLOCYNTH.**—Neglected and dull of sale: 53 packages *Turkey* good pale apple are held for 1s. 1d. to 1s. 2d. per lb., and 50 cases small to good pale apple, imported from Batoum, sold at 1s. per lb., being a decline of 1d. from the last auction prices; for 2 cases pale *Spanish* 9½d. per lb. is asked.

**CONDURANGO.**—Nineteen bales fair, partly woody and small mixed, sold at 5½d. to 6d. per lb.

**COWHAGE.**—No demand at all: 4 tins fair, partly strong quality, were bought in at a nominal price of 6d. per lb., but nothing like that could be realised if it were pressed for sale.

**CREAM OF TARTAR.**—Prices have given way still further, and it is now possible to buy best French *crystals* on the spot at 93s., while German *powder* is quoted at 96s. per cwt.

**CUBEBS.**—Very dull of sale, and without any business: at the auctions, for 9 bags fair, slightly stalky, round brown berries, 17l. per cwt. was nominally asked. Cubebs are still arriving very freely; the *Rohilla* brought 119 packages from Singapore this week.

**DRAGON'S BLOOD.**—Of 6 cases bold finger in reed, partly broken, and of somewhat bold colour, 3 sold at 5l. 10s. per cwt., being an advance of about 10s.

**ERGOT OF RYE.**—Dull and slightly easier. Of 26 packages *Spanish*, new crop, 6 sold at 1s. 2d. per lb. for rather small ergot, and for the remainder an offer of 1s. 1d. was refused.

**GAMBIER.**—The market has improved, and the price is fully 6d. higher, sales having been made at 22s. 6d. per cwt., both on the spot and for January-February.

**GAMBOGE.**—Fifteen cases shown to-day were all sold with strong competition, at an advance of 15s. per cwt.; good bright, partly run and broken pipe, fair coloury fracture, sold at 13l. 2s. 6d. to 13l. 5s.; duller, more broken and blocky pipe, somewhat ricey, at from 11l. 7s. 6d. to 12l., and good pickings at 10l. 7s. 6d. per cwt.

**GUARANA** remains scarce, but at the same time there is no strong demand. One 150 lb. case was shown to-day, and bought in at 8s. per lb., the broker stating that nearly the whole of the stock had been shipped back to South America.

**GUM ARABIC.**—Business in *East Indian* arabis has been exceedingly quiet this week and we have nothing new to report under this heading. At the drug sales, four bags *Australian* arabic sold at 27s. per cwt. for fair glassy drop, and 15s. for block; 5 casks ordinary dull pale *Mogadore* sorts were bought in at 6l. per cwt.

**GUM BENZOIN.**—A very poor show was offered at to-day's auctions. Hardly any business was done. *Siam* gum was bought in at 16l. for good pale small to bold almonds, mostly blocky, and at 7l. 10s. for sittings run into hard block, and partly mixed with layers and dust and earth. For some glassy *Penang*, slightly almondy, an offer of 85s. was refused. Of *Sumatra* gum a few lots very good seconds, pale small to bold almonds, fine flavoured and only slightly false packed, sold at 9l. 2s. 6d., and some common false packed gum, with very few almonds, sold at 75s. per cwt.; for 10 cases *Palem-bang* good almondy, in small boxes, 65s. per cwt. is asked.

**GUM ELEMI.**—Ten cases very dirty mixed, but of good flavour, sold without reserve at the low price of 13s. per cwt.

**GUM TRAGACANTH.**—Last Friday a public sale took place at which about 135 packages were sold without reserve at 8l. 10s. to 8l. 15s. for good Syrian seconds.

**HONEY.**—There is no alteration in this article. The prices are fairly well maintained, but competition does not seem quite so strong as it has been. A parcel of 20 cases fine liquid amber-coloured *Californian* was bought in at 52s. 6d. per cwt. Of 12 kegs *Chilian* honey, a few of rather dull brown colour sold at 34s. 6d.; and for fair amber 36s. was named as the price. Ten packages *Jamaica* honey were all sold at 37s. to 38s. for good brown liquid; 35s. for dark ditto; and from 28s. to 31s. for thick grey liquid, partly candied. From Liverpool we hear that the market has been firmer this week, with fairly large sales of *Chilian* at from 28s. 6d. up to 35s. per cwt., according to quality.

**INDIGO.**—The London market remains exceedingly quiet. Reports from Calcutta dated November 19, state that with the exception of a few brands the Behar crop is a good one and decidedly above the average. The Bengal brands vary considerably, but in the aggregate they fall below the average.

**IPECACUANHA.**—This article attracted a good deal of attention at to-day's auctions, it having been announced that a considerable part of the supply offered by one broker would be sold without reserve. As we announced a few weeks ago, a new importer has entered the market in this article and acts quite independently from the other two importers, who have until now controlled the supply of the article. To-day's offerings consisted of 91 packages, of which 36 sold at a decline of quite 10d. per lb. on the last auction price: fair, partly wiry to good stout mixed sound, realised 7s. to 7s. 3d. (one lot 7s. 4d. per lb.); damages, first and second class from 6s. 7d. to 7s. 1d., and third class (a very mouldy lot) 6s. 2d. per lb.

**JALAP.**—High prices still continue to be asked, but there is a decided absence of demand; 20 packages of new import, consisting mostly of ordinary bold and rough *Tampico* root slightly mixed with true *Vera Cruz*, were withdrawn, there being no bids even of 9d. per lb. for it; 10 bales good small to bold mixed heavy *Vera Cruz* were bought in at 1s. 11d. to 2s. 1d. per lb.

**JUNIPER BERRIES.**—We hear from Italy that the demand has improved considerably in consequence of the proved deficiency in the crop. Holders have been able to obtain better prices: 6s. 9d. to 7s., f.o.b. Leghorn, is quoted for new crop.

**KOLA NUTS.**—About 25 packages of this drug were placed in the sale, but there was hardly any demand, and nearly the whole was bought in, with the exception of 1 bag dried, fair *West Indian* kolas, which sold at 1s. 3d. per lb., and a few lots of rotten and mouldy, for which 3½d. to 5d. per lb. was accepted; two bags common and wormy green kolas sold at 1½d. per lb.



**KOUSSO.**—For 1 bale, said to be the last in London, small loose crushed flowers 1s. per lb. is asked.

**MUSK.**—A fairly large supply was offered to-day, but scarcely a single package found buyers, and prices therefore remain more or less nominal. Of 17 caddies *Tonquin* pods, first pile, nothing was sold; good medium to bold well-trimmed old-fashioned being bought in at from 75s. to 80s. per oz.; of 27 caddies third pile only 1 sold; ordinary false ragged pods, at 21s. per oz.; this lot was offered without reserve; for two other parcels ordinary small to bold skinny and untrimmed pods from 26s. 6d. to 27s. was refused, the price for the one parcel being 27s., and of the other 30s. per oz.

**MUSK SEED.**—For 9 bags fairly good *West Indian* 5½d. per lb. is asked.

**OIL (CASTOR).**—Our market is dull and lifeless, and at to-day's auctions only a few unimportant lots were shown and bought in—yellow *Madras* at 3¼d. per lb. A fair business in castor oil is being done in Liverpool, and good *Calcutta* seconds are selling in a small way at 3⅞d. per lb. *French* oil is worth 3⅞d. to 3½d. for first and about ½d. less for second pressure. For future delivery the market is weak. *Calcutta* mail reports, dated November 19, say that both the supply and the production of oil are very limited, hence prices were somewhat firmer. But the supply of seed for crushing was accumulating at the date of the report.

**OILS (ESSENTIAL).**—The market is without any features of importance. *Menthol*, and Japanese and American *Peppermint* oil remain steady, but unaltered, at our recent quotations. At to-day's auctions, 10 cases unworked *Star-anise* oil were offered, of which 4 sold at 6s. 6d. per lb. *Cassia* oil is firmly held: 25 cases, "quality not guaranteed," were shown to-day, and for 1 lot a bid of 3s. 8d. per lb. was refused, 3s. 9d. being named as the price. Five cases ordinary acrid oil, imported *via* America, sold at 2s. 7d. per lb. Two cases fair bright yellow *Cinnamon* oil realised 1s. 4d. per oz.; and 17 bottles, catalogued as "cinnamon oil," sold without reserve for 3d. per oz. Of *Cedar-wood* oil, one case, containing 2½-cwt. tins, was bought in at 1s. 6d. per lb. For 50 cases *Citronella* oil, in tins, ¾d. per oz is asked, but there were no bids. Two cases, each containing 230-lb tins of *Camphor* oil, brought 3d. per lb.

**OPIUM.**—The market remains exceedingly quiet, and prices are unchanged, while business is almost at a standstill. At to-day's auctions 3 cases—the variety of which was not stated—imported in September last were offered and bought in, 12s. per lb. being thrown out as a suggestion, which however did not meet with any response.

**ORRIS ROOT.**—None was offered at to-day's auctions. In Italy prices remain very firm, and holders of best Florentine orris are able to realise from 90s. to 95s. per cwt., f.o.b. Leghorn for small parcels. Verona root is held at from 40s. to 55s. per cwt., f.o.b. Leghorn, according to quality.

**PAREIRA BRAVA.**—The quotations vary considerably, some holders asking as much as 5l. per cwt., while others only quote 40s. There is no business in the article at present.

**PATCHOULY.**—3 bags very dark dust sold at the rate of 1½d. per lb.

**PUREE.**—Ten cases (about 850 lbs. altogether) imported from *Calcutta*, and which have been offered on one or two occasions previously, were withdrawn.

**QUASSIA.**—Forty-two packages of chip quassia, direct import from the West Indian island of St. Kitts, were offered to-day. It will be remembered that some time ago we noticed for the first time chipped wood had been imported direct from the producing country. On this occasion the whole was disposed of: good bold bright chips, in ½-cwt. bags, at 7l. 15s. per ton, and 2 barrels, also ½-cwt. each, of very fine bright raspings at the high price of 13s. per cwt.

**QUICKSILVER.**—The market has been very dull, and closes at lower prices—first hands 9l. 5s., seconds 9l. per bottle.

**QUILLARIA.**—The market remains steady, with sales in Liverpool at the rate of 18s. 6d. per cwt.

**QUINCE SEED.**—Two bags *Cape* seed sold at 6d. per lb.

**QUININE.**—The market has been in a lifeless condition, and the only business which has transpired has been a sale,

at the end of last week, of 12,000 oz. for January-February, at 13d. per oz. On the spot there are sellers of German bulk at 11½d. per oz., but no buyers over 11½d. per oz.—if there are any at that figure.

**RHUBARB.**—A very poor assortment was shown and hardly any sales took place, the only business being in *Canton* root, of which a few cases good small to medium, three-fourths pinky fracture, sold at 1s. 7d. per lb., and bolder to but more spongy ditto at 1s. 4d. per lb.

**SAFFRON.**—There have been fair sales at the recent recovery in price, but there is no change in the position of the article this week.

**SARSAPARILLA.**—*Honduras* root is held, according to quality, at from 1s. 4d. to 1s. 6d. per lb. A few packages sold to-day at 1s. 4d. to 1s. 5d. For a parcel of spurious *Guayaquil*, very common, chumpy and damaged, 9½d. per lb. is stated to be the price. Twenty-five bales *Mexican* brought 7½d. per lb., which shows some advance.

**SCAMMONY ROOT.**—A parcel of 113 bales is held for 27s. 6d. per cwt. We notice an arrival this week of 8 packages entered as "scammony," and imported from Singapore.

**SENNA.**—The supply of 234 packages *Tinnevely*, nearly all of very ordinary quality, found buyers with strong competition at unchanged prices: small to medium greenish, partly yellow, mixed to fair, from 2d. to 3½d.; medium green, 4d.; and 1 lot good bold green leaves, 7½d. per lb. The great bulk was common small to medium yellowish and specky, which sold at from 1¾d. down to ½d. per lb., nearly all of it more or less damaged. Fifty-eight packages *Alexandrian* senna were nearly all bought in, fair green leaf being held for 1s. 2d. per lb.; 1 case of exceptionally fine bold green leaves realised the high price of 2s. 1d. per lb.

**SHELLAC.**—The week opened with a very uneasy feeling and on Tuesday the quotation for December TN at the call fell as low as 79s. per cwt. On the same day at the auctions 796 cases were offered, of which 455 sold at a decline of 5s. to 6s. on *Second orange* lac, and 3s. to 4s. on *Garnet*, while *Button lac* was also somewhat easier. Fair red to good bright worked orange realised 79s. to 82s.; ordinary blocky and livery, 75s. to 77s.; ordinary red to fair unworked brought 77s. to 80s. per cwt. Good free AC *Garnet* sold at 76s. and caky ditto at 75s. per cwt. Some good first *Button lac* brought 90s. per cwt. Since the auctions the market has assumed a much firmer appearance, and yesterday and to-day there has been business at the call and afterwards at 83s. to 84s. for December delivery, and 78s. for March and April delivery. *Calcutta* mail reports, dated November 19, speak of a quiet market, and state that most of the factories are busily employed in completing contracts.

**SULPHUR.**—Prices are still advancing, *Sicilian* being quoted at 5l. 5s., f.o.b. Tyne.

**TEA.**—The market for lower grades of Congou is very firm and shows an advance of ½d. to ¾d. per lb. for Monings under 6d., while terminal market quotations are correspondingly higher. The last of Messrs. Thorne's catalogues of common Monings was disposed of on Wednesday from 5d. to 5¾d., and the general feeling is that with this regular supply cut off and the strong statistical position of China tea we are likely to see a permanently higher market. No stronger proof can be needed of the disfavour with which China tea is now regarded than the fact that good sound Congou with a suspicion of quality can be bought at 5½d. to 6d. per lb. in the face of the shrinkage of imports and the prospect of rapidly diminishing stocks. *Assams* continue to be offered very freely, and teas from 8d. to 1s. show wonderful value, Pekoes from 10d. to 1s. being cheaper and better than we have seen them for a very long time. Fine teas, however, are scarcer, and show a substantial advance. *Ceylons* are unchanged for all good medium teas, but common undesirable sorts are not wanted, and sell at whatever they will fetch.

**TONQUIN BEANS.**—A rather considerable supply, amounting to about 35 packages, was shown to-day, but no sales of any importance were made: fine frosted *Angostura* beans bought in at 6s. 9d. per lb.; for medium brown to good black frosted *Para* 3s. 3d. to 4s. is asked, and 2s. 10d. for ordinary foxy ditto. We notice an arrival of about 90 cases in Liverpool.



**VANILLA.**—The first arrivals of the new crop were placed in sale to-day. These parcels included some very fine vanilla, brown and long, but only slightly crystallised; these realised extreme prices,  $7\frac{1}{2}$  to  $8\frac{1}{2}$  inches selling at 19s. to 21s.,  $4\frac{1}{2}$  to  $7\frac{1}{2}$  inches at 13s. to 17s. 6d.,  $5\frac{1}{2}$  to 7 inches at 12s. 6d. to 16s. 6d., and medium dark, but irregular, 4 to 8 inches, at from 9s. 6d. up to 14s. per lb.

**WAX (BEES').**—The market remains very firm indeed, and at to-day's auctions nearly the whole supply offered was sold at good prices. *Jamaica* brought 6l. 7s. 6d. to 6l. 10s. for good to fine bright yellow, and from 5l. 5s. to 5l. 17s. 6d. for grey and brown to good orange. Nearly 200 packages *Madagascar* sold at 100s. to 107s. 6d. per cwt. for chocolate to fair brown, while some pale grey bleached *Culcutta* realised from 6l. 5s. to 7l. per cwt.

### CHEMICALS IN THE NORTH OF ENGLAND.

THE chemical market, as is usual at this period of the year, is rather quiet, but prices on the whole continue firm, the chief business doing at present being on American account. There are still a few odd lots of *Bleaching-powder* offering by second-hands at a lower figure than prices quoted by the combined manufacturers, but only for this month's delivery, buyers for forward having to pay the full market quotations.

THE LABOUR TROUBLES still continue in the Widnes district, where Messrs. Pilkington's salt-cake men are still holding out against the reduction. It seems that, after joining the amalgamation, the owners found they were paying their men considerably more than other makers, and they naturally wished to have the cost of manual labour reduced to the same level as at other works, and consequently gave notice of reduction in wages, when the men refused to work. This will have the effect of reducing the output of sulphate of soda until the matter is settled.

THE EXPORTS OF CHEMICALS from the Tyne for the first month under the management of the United Alkali Company show a slight increase in the total tonnage as compared with the corresponding month of the previous year:—

	November, 1889	November, 1890
	Tons	Tons
Alkali and soda ash .. ..	1,870	1,482
Bleaching-powder .. ..	1,708	1,701
Soda crystals .. ..	1,374	1,493
Sulphate of soda .. ..	77	445
Caustic soda .. ..	1,876	1,005
Other chemicals .. ..		1,389
Total tons .. ..	6,905	7,515

A SPECIAL MEETING OF THE SHAREHOLDERS of the Newcastle Chemical Works Company (Limited) was held in Newcastle on Tuesday, to consider the proposed transfer of the works to the United Alkali Company (Limited); and it is said that the shareholders were unanimous in adopting the agreement entered into for the sale of the works. The price fixed for the value of the works has not been made known, but it is said to be the largest to be paid by the Union to any one of the Leblanc manufacturers. Mr. J. E. Davidson, one of the directors of the Newcastle Chemical Works Company, and also of the United Alkali Company, said that he had visited all the Leblanc works, with two unimportant exceptions, in the United Kingdom, and their own works were the best equipped and most substantial of any.

The Newcastle Chemical Works are probably one of the best of the Leblanc chemical works in existence. They possess their own salt mines, and have all the latest appliances for cheap production. They are one of the largest manufacturers of caustic soda, and make a speciality of this article, producing a higher strength than made by any other maker—viz., 77 per cent. Their "Chance" sulphur-recovery

process, when completed, will be about the largest of its kind. Their present output of recovered sulphur is said to be 120 tons per week; but this quantity will be considerably increased when the plant is fully completed.

**BICARBONATE OF SODA** continues very scarce, with little offering for prompt, at 7l. 17s. 6d. per ton on rails at makers' works, and 8l. per ton f.o.b. Liverpool, packed in 1-cwt. kegs.

**BLEACHING-POWDER** in the Lancashire district is in fair demand, but is quiet in the Tyne district. For prompt and forward delivery, price is 6l. 12s. 6d. per ton on rails in softwood casks, and 6l. 15s. per ton f.o.b. Liverpool. Hardwood for prompt 7l. per ton, and for forward 7l., with a slight advance for special brands. Tyne prices 6l. 15s. per ton in softwood casks, and 7l. per ton in hardwood casks. All less  $3\frac{1}{2}$  per cent. discount. Some lots offering by second-hand for delivery this month at 2s. 6d. to 5s. per ton under Union prices.

**CAUSTIC SODA** quiet, but price steady. 60 per cent. 10l. per ton, 70 per cent. 11l. 5s. per ton, and 74 per cent. 12l. 5s. per ton f.o.b. Liverpool prompt delivery. For first or second half of next year makers would accept 5s. per ton less than current figures, but for shorter periods price is same as is now ruling. Tyne market steady at 12l. per ton for 77 per cent. solid in drums, and 16l. per ton ground and packed in 3 to 4 cwt. casks f.o.b. Tyne, both net cash.

**CHLORATE OF POTASH** firm at  $5\frac{1}{2}$ d. per lb. less 5 per cent. discount for this month, and 6d. per lb. for all 1891, at usual ports of shipment.

**CREAM CAUSTIC** firm and scarce. For this month price is 9l. 10s. per ton on rails, and 9l. 12s. 6d. per ton f.o.b. Liverpool, less  $3\frac{1}{2}$  per cent. For next year's delivery makers quote 9l. 5s. and 9l. 7s. 6d. per ton.

**HYPOSULPHITE OF SODA** continues in demand, and prices firm at 6l. per ton in casks, and 6l. 10s. per ton in kegs f.o.b. Tyne, and 6l. 15s. and 7l. 5s. per ton for casks and kegs delivered Liverpool and Manchester, less usual discount.

**SODA ASH** continues firm in price, with little obtainable for early shipment. Prices range, according to brand, from  $1\frac{5}{16}$ d. to  $1\frac{3}{8}$ d. per degree for *Caustic*, and  $1\frac{3}{8}$ d. to  $1\frac{1}{2}$ d. per degree for *Carbonated*, f.o.b. Liverpool. Tyne market, more doing, with large sales reported to United States; carbonated quoted  $1\frac{3}{8}$ d. per degree, less  $3\frac{1}{2}$  per cent. For 1891, lowest price for caustic is  $1\frac{5}{16}$ d. per degree, and carbonated  $1\frac{3}{8}$ d. per degree, f.o.b. Liverpool or Tyne.

**SODA CRYSTALS.**—Steady and unchanged. For prompt and forward delivery, price is 3l. 7s. 6d. per ton on rails, and 3l. 10s. per ton net weight f.o.b. Liverpool; and 2l. 16s. per ton gross weight f.o.b. Tyne.

**SULPHATE OF COPPER.**—Market firm at 18l. 10s. to 19l. per ton, less 5 per cent., f.o.b. Liverpool, for prompt, and 20l. per ton for early month of next year.

### THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, December 13.

THE manufacturing bark offered at to-day's auctions contained an aggregate of about  $13\frac{1}{2}$  tons sulphate of quinine, or 4.03 per cent. on the average, divided as follows:—About 22 tons contain 1.2 per cent.; about 64 tons contain 2.3 per cent.; about 101 tons contain 3.4 per cent.; about 62 tons contain 4.5 per cent.; about 53 tons contain 5.6 per cent.; about 20 tons contain 6.7 per cent.; about 14 tons contain 7.8 per cent. The entire supply was disposed of at some decline, the unit value being: for low-grade barks,  $7\frac{1}{2}$  to  $7\frac{3}{4}$  cents per  $\frac{1}{2}$  kilo. (=  $1\frac{1}{4}$ d. to  $1\frac{3}{8}$ d. per lb.); and for high-grade barks,  $7\frac{3}{4}$  to 8 cents (= about  $1\frac{3}{8}$ d. per lb.). The following were the prices obtained: manufacturing barks, in quill, broken quill, and chips, 7 to 63 cents (=  $1\frac{1}{4}$ d. to  $11\frac{1}{2}$ d. per lb.); ditto root, 16 to 55 cents (= 3d. to 10d. per lb.). Druggists' barks, in quills, broken quills, and chips, 7 to 89 cents (=  $1\frac{1}{4}$ d. to 1s. 4d. per lb.); ditto root bark from 9 to 37 cents (=  $1\frac{1}{2}$ d. to  $6\frac{1}{2}$ d. per lb.). The principal buyers in the order of their purchases were the Auerbach factory, the Brunswick works, and the Amsterdam quinine works.



**KOUSO.**—For 1 bale, said to be the last in London, small loose crushed flowers 1s. per lb. is asked.

**MUSK.**—A fairly large supply was offered to-day, but scarcely a single package found buyers, and prices therefore remain more or less nominal. Of 17 caddies *Tonquin* pods, first pile, nothing was sold; good medium to bold well-trimmed old-fashioned being bought in at from 75s. to 80s. per oz.; of 27 caddies third pile only 1 sold; ordinary false ragged pods, at 21s. per oz.; this lot was offered without reserve; for two other parcels ordinary small to bold skinny and untrimmed pods from 26s. 6d. to 27s. was refused, the price for the one parcel being 27s., and of the other 30s. per oz.

**MUSK SEED.**—For 9 bags fairly good *West Indian* 5½d. per lb. is asked.

**OIL (CASTOR).**—Our market is dull and lifeless, and at to-day's auctions only a few unimportant lots were shown and bought in—yellow *Madras* at 3¼d. per lb. A fair business in castor oil is being done in Liverpool, and good *Calcutta* seconds are selling in a small way at 3¾d. per lb. *French* oil is worth 3¾d. to 3½d. for first and about ½d. less for second pressure. For future delivery the market is weak. *Calcutta* mail reports, dated November 19, say that both the supply and the production of oil are very limited, hence prices were somewhat firmer. But the supply of seed for crushing was accumulating at the date of the report.

**OILS (ESSENTIAL).**—The market is without any features of importance. *Menthol*, and Japanese and American *Peppermint* oil remain steady, but unaltered, at our recent quotations. At to-day's auctions, 10 cases unworked *Star-anise* oil were offered, of which 4 sold at 6s. 6d. per lb. *Cassia* oil is firmly held: 25 cases, "quality not guaranteed," were shown to-day, and for 1 lot a bid of 3s. 8d. per lb. was refused, 3s. 9d. being named as the price. Five cases ordinary acrid oil, imported *via* America, sold at 2s. 7d. per lb. Two cases fair bright yellow *Cinnamon* oil realised 1s. 4d. per oz.; and 17 bottles, catalogued as "cinnamon oil," sold without reserve for 3d. per oz. Of *Cedar-wood* oil, one case, containing 2 ½-cwt. tins, was bought in at 1s. 6d. per lb. For 50 cases *Citronella* oil, in tins, ¾d. per oz. is asked, but there were no bids. Two cases, each containing 2 30-lb. tins of *Camphor* oil, brought 3d. per lb.

**OPIUM.**—The market remains exceedingly quiet, and prices are unchanged, while business is almost at a standstill. At to-day's auctions 3 cases—the variety of which was not stated—imported in September last were offered and bought in, 12s. per lb. being thrown out as a suggestion, which however did not meet with any response.

**ORRIS ROOT.**—None was offered at to-day's auctions. In Italy prices remain very firm, and holders of best Florentine orris are able to realise from 90s. to 95s. per cwt., f.o.b. Leghorn for small parcels. Verona root is held at from 40s. to 55s. per cwt., f.o.b. Leghorn, according to quality.

**PAREIRA BRAVA.**—The quotations vary considerably, some holders asking as much as 5l. per cwt., while others only quote 40s. There is no business in the article at present.

**PATCHOULY.**—3 bags very dark dust sold at the rate of 1½d. per lb.

**PURGE.**—Ten cases (about 850 lbs. altogether) imported from Calcutta, and which have been offered on one or two occasions previously, were withdrawn.

**QUASSIA.**—Forty-two packages of chip quassia, direct import from the West Indian island of St. Kitts, were offered to-day. It will be remembered that some time ago we noticed for the first time chipped wood had been imported direct from the producing country. On this occasion the whole was disposed of: good bold bright chips, in ½-cwt. bags, at 7l. 15s. per ton, and 2 barrels, also ½-cwt. each, of very fine bright raspings at the high price of 13s. per cwt.

**QUICKSILVER.**—The market has been very dull, and closes at lower prices—first hands 9l. 5s., seconds 9l. per bottle.

**QUILLAJA.**—The market remains steady, with sales in Liverpool at the rate of 18s. 6d. per cwt.

**QUINCE SEED.**—Two bags *Cape* seed sold at 6d. per lb.

**QUININE.**—The market has been in a lifeless condition, and the only business which has transpired has been a sale,

at the end of last week, of 12,000 oz. for January-February, at 13d. per oz. On the spot there are sellers of German bulk at 11½d. per oz., but no buyers over 11¼d. per oz.—if there are any at that figure.

**RHUBARB.**—A very poor assortment was shown and hardly any sales took place, the only business being in *Canton* root, of which a few cases good small to medium, three-fourths pinky fracture, sold at 1s. 7d. per lb., and bolder to but more spongy ditto at 1s. 4d. per lb.

**SAFFRON.**—There have been fair sales at the recent recovery in price, but there is no change in the position of the article this week.

**SARSAPARILLA.**—*Honduras* root is held, according to quality, at from 1s. 4d. to 1s. 6d. per lb. A few packages sold to-day at 1s. 4d. to 1s. 5d. For a parcel of spurious *Guagaguil*, very common, chumpy and damaged, 9½d. per lb. is stated to be the price. Twenty-five bales *Mexican* brought 7½d. per lb., which shows some advance.

**SCAMMONY ROOT.**—A parcel of 113 bales is held for 27s. 6d. per cwt. We notice an arrival this week of 8 packages entered as "scammony," and imported from Singapore.

**SENNA.**—The supply of 234 packages *Tinnevely*, nearly all of very ordinary quality, found buyers with strong competition at unchanged prices: small to medium greenish, partly yellow, mixed to fair, from 2d. to 3½d.; medium green, 4d.; and 1 lot good bold green leaves, 7½d. per lb. The great bulk was common small to medium yellowish and specky, which sold at from 1¾d. down to ½d. per lb., nearly all of it more or less damaged. Fifty-eight packages *Alexandrian* senna were nearly all bought in, fair green leaf being held for 1s. 2d. per lb.; 1 case of exceptionally fine bold green leaves realised the high price of 2s. 1d. per lb.

**SHELLAC.**—The week opened with a very uneasy feeling and on Tuesday the quotation for December TN at the call fell as low as 79s. per cwt. On the same day at the auctions 796 cases were offered, of which 455 sold at a decline of 5s. to 6s. on *Second orange* lac, and 3s. to 4s. on *Garnet*, while *Button lac* was also somewhat easier. Fair red to good bright worked orange realised 79s. to 82s.; ordinary blocky and livery, 75s. to 77s.; ordinary red to fair unworked brought 77s. to 80s. per cwt. Good free AC *Garnet* sold at 76s. and caky ditto at 75s. per cwt. Some good first *Button lac* brought 90s. per cwt. Since the auctions the market has assumed a much firmer appearance, and yesterday and to-day there has been business at the call and afterwards at 83s. to 84s. for December delivery, and 78s. for March and April delivery. *Calcutta* mail reports, dated November 19, speak of a quiet market, and state that most of the factories are busily employed in completing contracts.

**SULPHUR.**—Prices are still advancing, *Sicilian* being quoted at 5l. 5s., f.o.b. Tyne.

**TEA.**—The market for lower grades of Congou is very firm and shows an advance of ¼d. to ½d. per lb. for Monings under 6d., while terminal market quotations are correspondingly higher. The last of Messrs. Thorne's catalogues of common Monings was disposed of on Wednesday from 5d. to 5¼d., and the general feeling is that with this regular supply cut off and the strong statistical position of China tea we are likely to see a permanently higher market. No stronger proof can be needed of the disfavour with which China tea is now regarded than the fact that good sound Congou with a suspicion of quality can be bought at 5½d. to 6d. per lb. in the face of the shrinkage of imports and the prospect of rapidly diminishing stocks. *Assams* continue to be offered very freely, and teas from 8d. to 1s. show wonderful value, Pekoes from 10d. to 1s. being cheaper and better than we have seen them for a very long time. Fine teas, however, are scarcer, and show a substantial advance. *Ceylons* are unchanged for all good medium teas, but common undesirable sorts are not wanted, and sell at whatever they will fetch.

**TONQUIN BEANS.**—A rather considerable supply, amounting to about 35 packages, was shown to-day, but no sales of any importance were made: fine frosted *Angostura* beans bought in at 6s. 9d. per lb.; for medium brown to good black frosted *Para* 3s. 3d. to 4s. is asked, and 2s. 10d. for ordinary foxy ditto. We notice an arrival of about 90 cases in Liverpool.



**VANILLA.**—The first arrivals of the new crop were placed in sale to-day. These parcels included some very fine vanilla, brown and long, but only slightly crystallised; these realised extreme prices,  $7\frac{1}{2}$  to  $8\frac{1}{2}$  inches selling at 19s. to 21s.,  $4\frac{1}{2}$  to  $7\frac{1}{2}$  inches at 13s. to 17s. 6d.,  $5\frac{1}{2}$  to 7 inches at 12s. 6d. to 16s. 6d., and medium dark, but irregular, 4 to 8 inches, at from 9s. 6d. up to 14s. per lb.

**WAX (BEES').**—The market remains very firm indeed, and at to-day's auctions nearly the whole supply offered was sold at good prices. *Jamaica* brought 6l. 7s. 6d. to 6l. 10s. for good to fine bright yellow, and from 5l. 5s. to 5l. 17s. 6d. for grey and brown to good orange. Nearly 200 packages *Madagascar* sold at 100s. to 107s. 6d. per cwt. for chocolate to fair brown, while some pale grey bleached *Calcutta* realised from 6l. 5s. to 7l. per cwt.

## CHEMICALS IN THE NORTH OF ENGLAND.

THE chemical market, as is usual at this period of the year, is rather quiet, but prices on the whole continue firm, the chief business doing at present being on American account. There are still a few odd lots of *Bleaching-powder* offering by second-hands at a lower figure than prices quoted by the combined manufacturers, but only for this month's delivery, buyers for forward having to pay the full market quotations.

THE LABOUR TROUBLES still continue in the Widnes district, where Messrs. Pilkington's salt-cake men are still holding out against the reduction. It seems that, after joining the amalgamation, the owners found they were paying their men considerably more than other makers, and they naturally wished to have the cost of manual labour reduced to the same level as at other works, and consequently gave notice of reduction in wages, when the men refused to work. This will have the effect of reducing the output of sulphate of soda until the matter is settled.

THE EXPORTS OF CHEMICALS from the Tyne for the first month under the management of the United Alkali Company show a slight increase in the total tonnage as compared with the corresponding month of the previous year:—

	November, 1889	November, 1890
	Tons	Tons
Alkali and soda ash .. ..	1,870	1,482
Bleaching-powder .. ..	1,708	1,701
Soda crystals .. ..	1,374	1,493
Sulphate of soda .. ..	77	445
Caustic soda .. ..	1,876	1,005
Other chemicals .. ..		1,389
Total tons .. ..	6,905	7,515

A SPECIAL MEETING OF THE SHAREHOLDERS of the Newcastle Chemical Works Company (Limited) was held in Newcastle on Tuesday, to consider the proposed transfer of the works to the United Alkali Company (Limited); and it is said that the shareholders were unanimous in adopting the agreement entered into for the sale of the works. The price fixed for the value of the works has not been made known, but it is said to be the largest to be paid by the Union to any one of the Leblanc manufacturers. Mr. J. E. Davidson, one of the directors of the Newcastle Chemical Works Company, and also of the United Alkali Company, said that he had visited all the Leblanc works, with two unimportant exceptions, in the United Kingdom, and their own works were the best equipped and most substantial of any.

The Newcastle Chemical Works are probably one of the best of the Leblanc chemical works in existence. They possess their own salt mines, and have all the latest appliances for cheap production. They are one of the largest manufacturers of caustic soda, and make a speciality of this article, producing a higher strength than made by any other maker—viz., 77 per cent. Their "Chance" sulphur-recovery

process, when completed, will be about the largest of its kind. Their present output of recovered sulphur is said to be 120 tons per week; but this quantity will be considerably increased when the plant is fully completed.

**BICARBONATE OF SODA** continues very scarce, with little offering for prompt, at 7l. 17s. 6d. per ton on rails at makers' works, and 8l. per ton f.o.b. Liverpool, packed in 1-cwt. kegs.

**BLEACHING-POWDER** in the Lancashire district is in fair demand, but is quiet in the Tyne district. For prompt and forward delivery, price is 6l. 12s. 6d. per ton on rails in softwood casks, and 6l. 15s. per ton f.o.b. Liverpool. Hardwood for prompt 7l. per ton, and for forward 7l., with a slight advance for special brands. Tyne prices 6l. 15s. per ton in softwood casks, and 7l. per ton in hardwood casks. All less  $3\frac{1}{2}$  per cent. discount. Some lots offering by second-hand for delivery this month at 2s. 6d. to 5s. per ton under Union prices.

**CAUSTIC SODA** quiet, but price steady. 60 per cent. 10l. per ton, 70 per cent. 11l. 5s. per ton, and 74 per cent. 12l. 5s. per ton f.o.b. Liverpool prompt delivery. For first or second half of next year makers would accept 5s. per ton less than current figures, but for shorter periods price is same as is now ruling. Tyne market steady at 12l. per ton for 77 per cent. solid in drums, and 16l. per ton ground and packed in 3 to 4 cwt. casks f.o.b. Tyne, hotb net cash.

**CHLORATE OF POTASH** firm at  $5\frac{1}{2}$ d. per lb. less 5 per cent. discount for this month, and 6d. per lb. for all 1891, at usual ports of shipment.

**CREAM CAUSTIC** firm and scarce. For this month price is 9l. 10s. per ton on rails, and 9l. 12s. 6d. per ton f.o.b. Liverpool, less  $3\frac{1}{2}$  per cent. For next year's delivery makers quote 9l. 5s. and 9l. 7s. 6d. per ton.

**HYPOSULPHITE OF SODA** continues in demand, and prices firm at 6l. per ton in casks, and 6l. 10s. per ton in kegs f.o.b. Tyne, and 6l. 15s. and 7l. 5s. per ton for casks and kegs delivered Liverpool and Manchester, less usual discount.

**SODA ASH** continues firm in price, with little obtainable for early shipment. Prices range, according to brand, from  $1\frac{5}{10}$ d. to  $1\frac{3}{8}$ d. per degree for *Caustic*, and  $1\frac{3}{8}$ d. to  $1\frac{1}{2}$ d. per degree for *Carbonated*, f.o.b. Liverpool. Tyne market, more doing, with large sales reported to United States; carbonated quoted  $1\frac{3}{8}$ d. per degree, less  $3\frac{1}{2}$  per cent. For 1891, lowest price for caustic is  $1\frac{5}{10}$ d. per degree, and carbonated  $1\frac{3}{8}$ d. per degree, f.o.b. Liverpool or Tyne.

**SODA CRYSTALS.**—Steady and unchanged. For prompt and forward delivery, price is 3l. 7s. 6d. per ton on rails, and 3l. 10s. per ton net weight f.o.b. Liverpool; and 2l. 16s. per ton gross weight f.o.b. Tyne.

**SULPHATE OF COPPER.**—Market firm at 18l. 10s. to 19l. per ton, less 5 per cent., f.o.b. Liverpool, for prompt, and 20l. per ton for early month of next year.

## THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, December 13.

THE manufacturing bark offered at to-day's auctions contained an aggregate of about  $13\frac{1}{2}$  tons sulphate of quinine, or 4.03 per cent. on the average, divided as follows:—About 22 tons contain 1.2 per cent.; about 64 tons contain 2.3 per cent.; about 101 tons contain 3.4 per cent.; about 62 tons contain 4.5 per cent.; about 53 tons contain 5.6 per cent.; about 20 tons contain 6.7 per cent.; about 14 tons contain 7.8 per cent. The entire supply was disposed of at some decline, the unit value being: for low-grade barks,  $7\frac{1}{2}$  to  $7\frac{3}{4}$  cents per  $\frac{1}{2}$  kilo. (=  $1\frac{1}{4}$ d. to  $1\frac{3}{8}$ d. per lb.); and for high-grade barks,  $7\frac{3}{4}$  to 8 cents (= about  $1\frac{3}{8}$ d. per lb.). The following were the prices obtained: manufacturing barks, in quill, broken quill, and chips, 7 to 63 cents (=  $1\frac{1}{4}$ d. to  $11\frac{1}{2}$ d. per lb.); ditto root, 16 to 55 cents (= 3d. to 10d. per lb.). Druggists' barks, in quills, broken quills, and chips, 7 to 89 cents (=  $1\frac{1}{4}$ d. to 1s. 4d. per lb.); ditto root bark from 9 to 37 cents (=  $1\frac{3}{8}$ d. to  $6\frac{3}{8}$ d. per lb.). The principal buyers in the order of their purchases were the Auerbach factory, the Brunswick works, and the Amsterdam quinine works.





### Memoranda for Correspondents.

*Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.*

*Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.*

*If you send us newspapers, please mark what you wish us to read.*

*Ask us anything of pharmaceutical interest: we shall do our best to reply.*

*Before writing for formulæ consult the last volume, if you have it.*

*Letters, queries, &c., will be attended to in the order received.*

### The Pharmacy Bill.

SIR,—When the meeting was held in Leeds, on November 27, I did not vote either for the resolution or the amendments, considering that the proposed Bill did not sufficiently seek to aid the trade, and the amendments did not convey any meaning.

I therefore ask for permission to lay my views before your readers, in the hope that further expressions of opinion will be given, with the object of enabling the Council to glean more thoroughly the ideas prevalent in the minds of every adult connected with the business.

In explaining the curriculum clause, as it is termed, Mr. Carteighe expressed the opinion that the term of apprenticeship should be utilised for the sole purpose of giving instruction in the ordinary routine of a retail chemist's trade, and, also, that it is intended to have an intermediate examination; but it was not clearly stated what this examination was to test—a knowledge of chemistry, botany, and materia medica, or of the practical work of the business. It does not appear, either, when the youth is to attend the classes in the three subjects referred to.

Believing that, if our country is to maintain its position in the world's market, it is necessary to give the rising generation a thoroughly good education in technical science, I am greatly in favour of good, sound teaching; but I am a little puzzled to discern the difference between a youth attending a lecture of one hour or one hour and a half in either of these subjects weekly, for a period of fifteen or thirty weeks, interspersed by the work of an ordinary business, and attending similar lectures given on consecutive days, when the mind is freed from the care and thought of trade matters, and is given up entirely to study.

If Mr. Carteighe has expressed the views of the majority of the Pharmaceutical Council correctly, I presume the idea is that a youth shall attend the lectures referred to before going to be an apprentice; if so, why not make the Preliminary examination not only a test of his knowledge of Latin, English, mathematics, &c., but also in the subjects mentioned; and then the intermediate examination could be used to test his knowledge of doses and strengths of the various preparations of the Pharmacopœia.

With reference to clause 7 I quite think there are, in the small towns and villages scattered throughout the country, and even in large towns, a great number of retail chemists who carry on their business with the aid of an apprentice, and it is quite easy to understand that, with careful tuition, such youths can compound an ordinary prescription after they have been in the business a couple of years. It would be very annoying to the retail chemist who was confined to his bed by illness, or wished to take a few hours' run into the country for the benefit of his health, to know that a law existed by which any person could fine his apprentice for correctly dispensing a prescription. If clause 7 were altered by inserting after "chemist and druggist" "or has passed the intermediate examination," then it would stimulate youths to acquire the necessary information requisite for making a careful dispenser.

When the British Medical Association met at Leeds in

1889 there appeared to be a general consensus of opinion amongst the members that the elaborate curriculum through which the student had to go did not really fit him, after passing all the examinations, for the duties of a general medical practitioner, and that it would be better to lengthen the time for study and let a portion be employed in gaining a practical knowledge of his profession; and it seems to me that if, instead of shortening the term of apprenticeship, it were made compulsory for every youth wishing to enter our business to pass the Preliminary examination before he was sixteen years of age, and afterwards serve an apprenticeship of not less than five years, during which he must attend courses of study in the subjects previously referred to, and at the end of two or three years from the date of the indenture, on producing certificate of having done so, shall be eligible to pass the intermediate examination, which shall be held yearly in the various centres agreed upon, and, if successful, shall be granted the privileges I have previously mentioned. It would be advantageous to the trade and the public.

Should the Council of the Pharmaceutical Society determine upon these alterations, I shall be glad to give my support in endeavouring to get the Bill passed; if otherwise, I feel their scheme is impracticable, and shall consider it a duty, in the interests of the public, to oppose the measure.

Yours respectfully,

Leeds.

EDWIN YEWDALL.

SIR,—I shall be glad if you will allow me to correct some figures quoted in your last issue by Mr. Maud with respect to the Leeds meeting.

I carefully counted the number present when the attendance was at a maximum, and passed a slip on which the number was written, viz., 87 (which included five representatives of the press) to your reporter.

Owing to the fact that many persons who attended the meeting had left when the resolution was put from the chair, my opinion is that, excluding reporters, only about sixty were then present.

The neutrals, therefore, must have been much lower than thirty-five, the figure at which Mr. Maud estimates them.

Yours faithfully,

F. W. BRANSON,

Leeds, December 9.

Hon. Secretary.

"One Who Has Lately Passed and Commenced Business" (191/67) writes:—"I agree with every word of Mr. Pond's letter in last issue, and if anything could be done to put down these useless humbugs and to raise our calling out of the gutter I would give some of my life's blood for the cause."

### Pharmaceutical Education in Ireland.

SIR,—The quondam President of the Pharmaceutical Society of Ireland has conceived the brilliant idea of soliciting the aid of English pharmacists to help him to raise the standard of higher education in Ireland. The lights of English pharmacy are just now engaged in their favourite occupation of drafting a Pharmacy Bill, and trying to persuade the hard-headed English chemist that a compulsory curriculum is the only cure for all the evils which the craft is heir to. Hence they may not have time to give to Mr. Brunker all the attention which he deserves, and, lest he should be left crying alone in the wilderness, I venture to make a few remarks.

For such an acute logician, the thesis which Mr. Brunker wishes to defend is not very clearly defined. That he is generally dissatisfied with the Pharmaceutical Society of Ireland is tolerably clear, and that the school of chemistry established by that body stinks in his nostrils is very evident. But what does not seem clear in Mr. Brunker's letter is whether he wishes the compulsory curriculum, such as it is, to be increased, or to be abolished.

Mr. Brunker scouts, with lofty scorn, the idea of a three months' course turning out a high-class pharmacist, let alone a man like Thresh or Martindale; but he also mentions, with seeming approbation, that the President declares that this three-months rule is of doubtful utility. I will



not stop to remind Mr. Brunker that a three-months course of practical chemistry is considered sufficient by all the medical boards, or that the course required for the Pharmaceutical is not simply a three-months course, but one hundred hours' practical work at least, which generally occupies much more time. But I will ask Mr. Brunker, Will not a man who attends such a course be better fitted for his work than another of whom no such course was required? And, as a matter of fact, have not a far greater proportion of candidates passed since this rule was enforced? But Mr. Brunker may say that he quite approves of a compulsory course of chemistry, but would like the course to embrace the other subjects, and be extended to two or three years. To such a proposal I would simply say, like the English chemists, that compulsion without protection is monstrous, and that we should like to experience a little more of the paternal protection of the Society before it makes any more claims on our time, on our heads, or on our purses. If the Society enforces vigorously and impartially the powers conferred on it by the new Act towards the protection of the public and of its licentiates, it will be bound to show the public that every man holding its certificate is competent to perform his duties, and whatever steps it takes to ensure this competency will deserve the help of every true pharmacist; but let protection and education proceed hand in hand.

In conclusion, I humbly submit that Mr. Brunker could do more for pharmacy in Ireland by helping the Society from within than by assailing it from without.

19 North Earl Street,  
Dublin.

Yours sincerely,  
J. C. MCWALTER.

#### Pontius.

SIR,—It may not be generally known amongst the trade that spongio peline, cut about 12 inches by 7 inches, used as pads for the sliding-seats in boating, is called by Cambridge undergraduates by the name of "Pontius Pilate," or more commonly "Pontius."

This may probably account for your Birmingham correspondent in "At the Counter" being asked for it by that name.

How the name originated, and whether it is used elsewhere, I am unable to say.

Yours truly,  
"WADLO." (195/4.)

#### Ipecacuanha sine Emetina.

SIR,—In your number just to hand, dated October 25, you reply to a query about powdered ipecac. deprived of emetine, but from which the cephaëlic acid is not removed.

We have for some months been preparing such a powder, and it is coming into very extensive use in dysentery and bowel complaints. The idea was suggested to us by Surgeon-Major Harris, who wrote to the *Lancet* and other medical papers about it after having given it a fair trial; and as a *Calcutta* journal has endeavoured to deprive him of the credit of originating its use, by stating that it has been prescribed for many years by the chief London physicians, we should be greatly obliged if you would ask for any information supporting or refuting such a statement.

Yours truly,  
Simla, November 12. SYMES & Co.

#### The Age for Qualifying.

SIR,—I have been waiting to see if some abler pen than mine would reply to the letter of "An Encrgetic Junior," in reference to what he terms "The Bitter Cry of Youth"; but, as no one has done so, I should like to say just one or two words if you will kindly afford me space in your journal.

(1) I think 21 is most certainly not any too late to be able to pass the qualifying examination. It might be an advantage to have an intermediate examination in order to qualify for an assistant, but anything further than that would be folly. (2) If a young man simply means cramming, two or three years is a long time to wait, but not if real, honest study is the object. If the latter is desired, the hopes or high ideas will not be destroyed, neither will the fascinations of the town lead him astray. (3) We do not want men in

the ranks of pharmacy whose sole object is cramming, for they are never fitted to advance one step the status of an honourable calling. I am, Sir,

Elm Grove, Southsea, Yours obediently,  
December 4. R. ELWELL NAISH.

#### Removing Tattoo-Marks.

SIR,—In your reply in "Miscellaneous Inquiries," in to-day's CHEMIST AND DRUGGIST, to "Lilian," on the removal of "tattoo-marks," wherein you recommend cutting out by the use of the knife, I would suggest a much less disfiguring and painful operation that I found quite successful—viz., by the application of pure nitric acid. Twenty years ago I removed three very indelible tattoo-marks on my hand. Certainly it left a scar, but now it is scarcely perceptible. The operation was performed by applying the nitric acid with the stopper of the bottle (a better instrument would be a piece of glass rod pointed, to carry the acid)—just sufficient to cover the stain, so as to avoid making a larger scar than needful—the acid allowed to remain about a minute and a half, until the "cutis vera" was penetrated and a crusted appearance shown, then washed off with clean cold water. In a few days after this treatment a scab forms, which contains the tattoo-mark or stain: remove it, and should inflammation supervene poultice and bathe with warm water. In this way the skin with the stain is not only removed almost painlessly (I mean tattoo-marks about the size of peas), but the nitric acid at the same time to a certain extent seems to decolourise the stain. Of course, large tattoo-marks greatly extending over the surface must necessitate the operation being performed differently. I may say this operation would appear to be that employed by surgeons. A few years ago I sent my little girl to a skilled surgeon to have a mark she had on her face from birth removed, and the doctor appeared to adopt the same treatment by applying a liquid which for the time being smarted. In the course of a few days a scab formed similarly to that in my own case, which when removed quite obliterated the mark. Of course, the earlier it is done in life, the more successful the operation.

I am, yours truly,  
Wolsingham, December 6. T. W. DODD.

#### Enemies Without and Enemies Within.

SIR,—Chemists look upon the stores as enemies from without, and rightly so. But, sir, there is an enemy within, which is making his presence felt in some towns in a terrible manner. I will explain by giving my own case.

I live in a town of over 10,000 inhabitants, not fifty miles from London. The population may be said to consist entirely of the working class. Two so-called retail chemists, principally—one living ten, the other fifteen miles away—have, during the past twelve months, called upon all our grocers, oilmen, and little shopkeepers with packed and carded drugs. In any of these shops can be seen boxed pills of various kinds, glycerine, tooth-tincture, cold cream, lip-salve, zinc ointment, quinine, vaseline, castor oil, and a host of other things, at a penny each. There are also 2d. bottles of sweet spirit of nitre, friar's balsam, paregoric, syrup of squills, ipecacuanha wine, cough-mixture, &c.—the things of everyday sale, and our very livelihood. How many drugs and chemicals have we to keep for a stray prescription, and which of themselves are a distinct loss! My returns in the above articles have dropped 60 per cent. Perhaps some chemist would say, Go and do likewise. Quite so; but I am not so selfish as to sell to a grocer to the injury of a fellow-chemist. Besides, I am not situated so that I can leave my business, being unable to keep an assistant; and if I were, the cutting betwixt the two chemists already is such that it would not pay if a similar trade was not done by them in other towns and villages.

Another case from within is of less importance, but worthy of notice. One day I had occasion to go into the country to a small village some three miles away. I called at a newspaper and tobacconist's shop, judging by the outside, to purchase some tobacco. Much to my surprise, I saw inside a number of shelves occupied with drugs of various kinds, carded and packed goods, and a glass case containing patent medicines and sundries. Knowing the owner



slightly, I said, "From whom do you buy your drugs?" Replying Mr. So-and-So, chemist. "And your patent medicines?" He named a well-known London house. "And what do they charge you?" "List price," he answered. "Did they ever ask if you were a qualified chemist, or ask you to produce your card?" "No," he said; "they never asked me anything. I order my goods, and pay for them before bringing them away." I never did much business with the house named, but after that I closed the account. Sir, I think I have proved the title of this letter up to the hilt: I wish I could as easily solve the remedy. Should like to hear the opinions of other chemists similarly situated.

Yours truly,  
VERAX. (192/21.)

#### "Rank Socialism."

SIR,—A correspondent in your last issue signing himself "Fairplay" holds forth somewhat strongly to the effect that every master before employing an assistant should furnish him with references to former employes, just the same as masters require references from previous employers before engaging an assistant. I frankly admit, as all-right minded men will, I think, admit, that assistants have rights as well as masters, and, of course, the assistants of to-day are the employers of the future; but your correspondent surely would not go so far as to say that he would propose placing employers at the mercy of "all sorts and conditions of men" for a "character." I say this with all due respect and consideration for the feelings of assistants, and frankly admit that the majority of assistants, although, of course, not perfection, are strictly honourable and wish to do their duty to employers in every way in their power. I have employed as many as eleven assistants at one time, and have, of course, met with some of the best men I could possibly wish for; but, on the other hand, I have also had to do with some of the worst. As an example, I may mention that an otherwise desirable assistant was quite recently in the habit of going off half a day each week (our closing day) with a small Gladstone bag, presumably containing dirty linen, but, my suspicions having been aroused, I one day politely requested that he would allow me to inspect his bag just before leaving. At first I met with a refusal, and was asked if I thought there was anything in it belonging to me. After failing to get him to unlock the bag I eventually threatened to call in the police. This "fetched" him, and on the bag being opened I found it literally packed with bottles of the most expensive essential oils and other valuable articles, and further inquiries led to the discovery that a lot of my goods were actually being warehoused for him at the time with a view to "commencing business." Is it to such men that "Fairplay" would have me apply for a character before he would become my assistant? Then, again, a master, according to our present law, is liable for the shortcomings of his assistants, and, if one of them should make a mistake in dispensing, it is the master who is sued for damages, not the assistant, who carries about with him all his responsibility (in a legal sense, at any rate) under his own hat, with the exception of what is contained in personal luggage. I think "Fairplay" has overshot the mark, and, possibly, when he has had the pleasure—or otherwise—of employing assistants himself, he will materially alter his views in this respect. In the meantime let me, as he quotes several authors, remind him that one author at least once wrote the words,

"SILENCE IS GOLDEN." (191/15.)

#### The Assaying of Kola Nuts.

In a Commentary note which we published a few weeks ago we gave the result of the analysis made in Messrs. Parke, Davis & Co.'s laboratory for the caffeine content of twelve samples of kolas, and stated that it was Mr. J. B. Nagelvoort who had made these analyses. That gentleman now writes from Detroit that the analyses were the joint work of the other analysts employed in the laboratory and himself, and also that they were made at the request of the editor of the *Pharmaceutisch Weekblad voor Nederland*, in which the results were first published.

#### DISPENSING NOTES.

*The opinions of practical readers are invited on subjects discussed under this heading.*

#### Gelatinous Mixtures.

SIR,—I have had the following returned to me, after a week's time, in a perfect gelatinous mass, and insoluble in both cold and warm water. Can you give any explanation why this should be?

Powdered rhubarb .. .. .	3j.
Carbonate of magnesia .. .. .	3ij.
Simple syrup .. .. .	3iij.
Dill-water .. .. .	3viij.

Mix.

Yours truly,  
VERDITER. (188/8.)

[We should think that the gelatinisation in this case is due to the action of the alkali on the fibrous and other easily convertible matter of the rhubarb.]

193/23. *Engenium*.—The odour is due to the tolu, and has been repeatedly explained by us.

#### A Cocaine Lotion.

SIR,—The following prescription on being dispensed effervesced and became cloudy:—

Cocaine hydroch. .. .. .	gr. v.
Glyc. boracis .. .. .	3ij.
„ ac. tannic .. .. .	3iij.
Aq. ad .. .. .	3iv.

Ft. lotio. "For spray."

Could you or some one of your readers kindly inform me of the reason for this, and oblige?

Yours sincerely,  
FRANK C. JONES.

November 27.

#### Ferrous Bromide Pills.

SIR,—Having a large number of these pills to make, I shall be pleased to hear the opinion of others respecting them:—

Ferri bromid... .. .	gr. xxiv.
Quin. sulph. .. .. .	gr. xij.
Ext. nucis vom. .. .. .	gr. iij.
„ aloes Soc. .. .. .	gr. iij.
Glycerini .. .. .	q.s.
Pepsin .. .. .	gr. 50

M. Ft. pil. xxiv. Coated.

After a couple of days the pills crack, and various excipients have been tried, but without success.

NOTTS. (192/9.)

#### An Edinburgh Prescription.

ONE of the physicians of the Edinburgh Royal Infirmary has given the following prescription, and *Andrew* (91/29) wishes to know how to dispense it:—

Quin. sulph. .. .. .	gr. 36
Potas. iodid. .. .. .	3j.
„ bicarb. .. .. .	3ij.
Acid. hydrobrom. .. .. .	3vj.
Aq. ad .. .. .	3viij.

M.

[As the ingredients are wholly incompatible, it is as well to have the reactions as limited as possible. Therefore add the bicarbonate to the acid; reduce the quinine sulphate to fine powder, and mix it with 2 oz. of water. Dissolve the iodide in the same quantity, make up the solution to 2 oz., and mix the whole.]



## LEGAL QUERIES.

190/60. *Pharmacist*.—The question of what constitutes "known to the seller" is discussed in THE CHEMISTS' AND DRUGGISTS' DIARY, 1891, page 328. A witness is only necessary in the case of the sale of poisons in part 1 of the Schedule when the purchaser is unknown to the seller, and in such cases the witness must know both parties.

192/50. *J. C.*—The Bill authorising a compulsory curriculum has not passed. If it should, it will be two or three years before it is enforced.

189/64. *Chemists*.—We understand the Medical Board of Cape Colony can, if they like, require an examination certificate from persons who wish to carry on the business of chemists and druggists in the colony. But we think it likely they would accept (in lieu of their own examination) evidence of registration under the Pharmacy Act of Great Britain.

193/23. *Eugenium*.—There is no legal reason why a hair-dresser should not sell "chloroform Eau de Cologne."

193/32. *G. L. A.*—The publication of the announcement you send us would render liable to medicine-stamp duty those preparations (not the drugs) the uses of which in diseases are indicated. We do not remember that the Board has ever prosecuted in respect of a Pharmacopœia preparation thus recommended, but they could do so, and they have declined to guarantee exemption in such cases.

193/74. *J. F. W.*—The liability of Gregory's powder to medicine-stamp duty depends entirely on the wording of the label. The Board do not in this case look upon the apostrophe as indicating the claim of a proprietary right. Mr. Alpe, in his handy-book, quotes specimens of liable and non-liable labels, recommendation for use in disease being the condition of liability.

## MISCELLANEOUS INQUIRIES.

*Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.*

272/12. *J. F. R.*—No. The only way by which you can change the colour of Carboy Bichromate Solution is to add some methylated spirit and boil. A green solution would result: but it would be cheaper for you to make a new solution.

189/51. *T. C. H.*—Perhaps it is Sal Polychrist that you mean. It is sulphate of potash.

187/36. *Hibernia*.—We do not have a working formula for Essence for Raspberry Wine. Try the addition of a sufficiency of cochineal colouring, essence of raspberry, and spirit to strong acetic acid.

271/90. *A. K.*—The hair-restorer is the usual thing—acetate of lead, milk of sulphur, glycerine, and rose-water. A model formula is given in the DIARY, and the sample does not materially differ from that.

184/3. *Junior*.—We are not aware of any method for preparing neat's foot oil extemporaneously.

270/30. *G. N. Savage*.—Syrup of Virginian Prune.—The B.P.C. formula is the best. Maccrate 3 oz. of the bark in number 20 powder in 4, or 5 oz. of water for twenty-four hours, then pack in a percolator, and add water until 9 oz. of percolate are obtained. In this dissolve 15 oz. of sugar without heat; add 10 drachms of glycerine and water, if necessary, to make 1 pint.

189/24. *Acacia*.—There is a good formula for malt and oil in the 1890 DIARY.

189/3. *B. B.*—We have not heard of such a book, but try one of the chemists' printers.

274/11. *Medical Exam.*—The subjects which you mention are included in "English," which the College of Preceptors does not require those who have passed the pharmaceutical preliminary to take again.

190/24. *Lactio*.—Syrup of lactophosphate of iron made as you describe will contain ferrous lactate and phosphate.

190/23. *J. Hetherington*.—If the opium contains 10 per cent. of morphia, and the tincture is properly made, it will be of the B.P. standard, although it may be slightly deficient in extractive matter. In this case it is not advisable to tamper with the tincture.

275/36. *Zummerset*.—Keep it well corked.

184/31. *Pain in Teeth after Filling*.—*F. J.* states that he has noticed in about 50 per cent. of teeth he has filled with dental amalgam during the last two months that considerable pain and tenderness have occurred at some time or other during the week or two after filling, and lasting for one, two, and sometimes three days. He has not yet had to draw a tooth in consequence, but fears this will be the result with some impatient subject or other. In two cases the decay had not extended as far as the nerve-cavity, though the pulp was sensitive, and had to be dressed with arsenic before excavation. In all the others the nerve was exposed, but was also treated with  $As_2O_3$ , until excavation was painless; and in these cases a piece of gutta-percha stopping was placed over the nerve-cavity before introducing the amalgam as a protection to the nerve. The pulp-cavities were all well cleaned out and dressed with oil of cloves or other antiseptic before filling, and the stoppings were all well executed structurally. What is the cause of pain, and how can it be prevented in future cases?

[We presume that our correspondent means that the pulp was sensitive to thermal changes. If, on the other hand, the patient complained of toothache (especially at night, when going to bed) from the tooth, in such a case the nerve is apparently inflamed by direct exposure, or it may be caused by continued indirect irritation through softened decayed tooth-tissue. In such cases the nerve or pulp must be dealt with, and a dressing of  $As_2O_3$  applied for twenty-four hours. This dressing must be inserted so as to come in direct contact with the inflamed pulp. After twenty-four hours the dressing, if applied properly, is supposed to have done its work; if not, a second application may be used for a similar time. The nerve destroyed, excavation must begin; and it is not sufficient that the pulp-chamber only be opened and cleaned out, but it is very necessary and important that the nerve-canals in the roots be carefully cleaned out, and all traces of dead nerve taken away. This is important, and if not attended to, sooner or later pain, more or less severe, must be felt, which arises from the dead animal matter left in the canals becoming putrid. Such failures as "F. J.'s" clearly point to insufficient and not too careful treatment. "Stopping" is now the "real art" in dental surgery, and to do it successfully requires not only knowledge, but careful and patient painstaking, very often at great self-sacrifice to the operator. Anyone can take a tooth out, but the same does not apply with regard to stopping. To gain success in treating and stopping dead teeth—which they become after



the nerve is taken from them—the canals in the roots must not only be cleaned out carefully, but they must be treated antiseptically until a healthy condition is established; otherwise, the result of stopping will certainly be worse than leaving alone. Our correspondent-states that the teeth had their nerves exposed, and were treated with  $As_2O_3$ , and he placed gutta-percha over the nerve-cavity before introducing the amalgam. We do not approve of filling the roots and nerve-chamber with gutta-percha; it expands, and hence may be the cause of a little pain or annoyance.]

188/13. *Orgectorix*.—We do not think it desirable to reopen the disoussion.

192/2. *G. K. G.*—We should not be justified in publishing a letter charging manufacturers with business immorality on the basis of a statement that somebody has sold their products at cost price.

191/10. *Manufacturer*.—Surely a flat contradiction cannot be always unjustifiable, "whatever the facts of the case may be."

191/3. *Butter*.—The subject is out of our line, and, in any case, you give no reason for your apparent scepticism as to the enterprise. We may say that we have heard that if you accept the proposal, lengthy delays follow—if, indeed, anything results.

193/11. *Cesar*.—**Medical Education**.—There is no inconsistency in the Educational Number figures if you will look at them in the proper way. We say that it costs to become a medical practitioner "little short of 400*l*." It may be done at 50*l*. less if you go to Glasgow; but if Anderson's College were attended by more than a certain number of students, the fees would have to be increased or the college enlarged. If you, a "Minor" man having no money, wish to study medicine, your first step is to get to a town where there is a medical school, and try to arrange to attend classes while you are in an assistancy. The same applies to the veterinary profession. We cannot say that many assistants do this, but some do in the university towns.

186/24. *Cum Theridia*.—**Lassar's Paste**.—See December 14, 1889, page 845.

185/21. *Paw*.—**Glycerine Cream**.—The following is what we take to be the article you are in want of:—

Oil of sweet almonds	..	..	8 fl. oz.
Spermaceti	..	..	2 oz.
White wax	..	..	1 "
Borax	..	..	$\frac{1}{2}$ "
Glycerine	..	..	3 fl. oz.
Orange-flower water	..	..	1 "
Oil of neroli	..	..	5 drops
„ rose	..	..	3 "

Melt the wax, spermaceti, and oil of sweet almonds together; dissolve the borax in the orange-flower water and glycerine, previously mixed; pour the solution, a little at a time, into the melted mixture, stirring the preparation without ceasing, until all the solution has been fully incorporated, and a homogeneous product results; finally, add the oils.

268/11. *G. C.*—The best way **To Perfume Almanacs, Ball Programmes, &c.**, is to sprinkle the perfume on sheets of blotting-paper, and place in an air-tight box layer by layer.

181/10. *Ferri*.—**Spruce Beer**.—Boil 5 oz. of pimento and  $\frac{1}{2}$  lb. of hops in 3 gallons of water for ten minutes. Strain, and add 14 lbs. of golden syrup, 11 gallons of warm water, and 8 oz. of essence of spruce. When lukewarm add yeast (floated on toast) and ferment. **Persian Sherbet** is lemon kali—that is, 2 parts of sugar, and 1 part each of tartaric acid and bicarbonate of soda, flavoured with oil of lemon.

189/43. *F. Thornby*.—**Bischof Extrakt, or Essentia Episcopalis**.—The following is the simplest formula for this German preparation:—

Tincture of fresh orange-peel	..	..	7 oz.
Cherry laurel water	..	..	80 minims
Tincture of cinnamon	..	..	83 "
Orange-flower water	..	..	13 oz.
Rectified spirit to	..	..	28 "

Allow to stand for a few days, and filter.

To make "Bischof's Drink" a teaspoonful of this is added to a quart of water, in which about 4 oz. of sugar has been dissolved.

189/42. *Lewis*.—The separation of the beef suet from the pomade is due to the want of stirring until nearly cold. Try that, and dip the bottles in ice-cold water.

185/58. *E. T. B.*—**Cod-liver Oil Emulsion**.—See September 8, 1888, p. 302; and September 22, 1888, p. 388. We extract the following formula for an emulsion with hypophosphites from the 1890 *DIARY*, now out of print:—

Powdered tragacanth	..	..	24 grs.
Yolks of two eggs	..	..	..
Hypophosphite of calcium	..	..	48 "
Hypophosphite of sodium	..	..	48 "
Glycerine	..	..	1 oz.

Rub all these together in a mortar. Add in their order, and in the proper manner for making an emulsion:—

Orange-flower water	..	..	2 oz.
Cod-liver oil	..	..	24 "
Oil of bitter almonds	..	..	15 minims
Oil of cinnamon	..	..	25 "
Chloroform	..	..	10 drops
Saccharin, 5 grains, dissolved in—	..	..	..
Jamaica rum	..	..	5 qz.

Make up to 36 fluid oz. with orange-flower water.

188/42. *Vinum*.—**Beef and Malt Wine**.—To each bottle of Tarragona port add 10 grains of isinglass, and set aside for a week or so, shaking once a day. Then strain, and add to each quart 1 oz. of extract of meat and 3 oz. of fluid extract of malt. Set aside for a few days, and strain.

185/42. *Kimia*.—If you buy in sufficient quantities you can get chromic acid for batteries at the price desired from any of the chemical manufacturers who advertise in this journal.

192/5. *Resin*.—The **Deposit in the Varnish** is the fatty matter of the shellac. Allow it to settle, decant the clear portion, and filter the rest.

#### Information Supplied.

**Venice Treacle**.—By this is meant "conf. mithridate" (or, practically, conf. opii).—*TULIP*. (191/18.)

189/62. *A. B. C.*—**A Short Way with Quinine Wine**.—The solvent power of citric acid on quinine sulphate is, as you observe, much increased by concentration—*ergo*, put into a mortar the quinine and citric acid, pour thereon  $1\frac{1}{2}$  oz. of the wine, and rub together for a few minutes. A clear solution is then obtained, which, added to the rest of the wine (detannated, of course), completes the article. I have pursued this plan for years.—*T. B. G.*

#### Information Wanted.

[*Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.*]

193/65. Violet-coloured shaving-paste, perfumed with otto, supplied in bulk by maker or agent. From whom obtainable?





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WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

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We respectfully recommend a small supply being stocked, that customers may not be disappointed and many turned away

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# A CHRISTMAS GIFT FROM "VINOLIA."

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The gift is a substantial one, and further sets of samples can be obtained at the following prices:—

<b>SOAP SAMPLES,</b>	<b>1/ per dozen</b>	} Retailing at 1½d. & 3d. each respectively.
<b>POWDER</b>	<b>2/</b>	

Chemists should avail themselves of this offer without delay, as the number of Cards we have on hand is limited.

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Bicarbonate of Soda	...	...	...	...	97.20
Mono Carbonate of Soda	...	...	...	...	1.90
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	.035
Moisture	...	...	...	...	.82
Insoluble	...	...	...	...	nil

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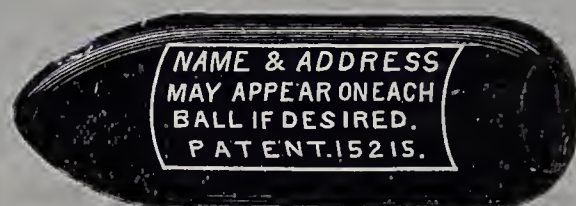
**EXTRACT of Malt and Cod Liver Oil.**

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In bulk, or in amber bottles in cardboard cases, 12/- per dozen.

### THE DURAPLASTIC COATED HORSE BALL.

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"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—*The Chemist and Druggist.*

No. 4.—Alterative Balls	...	...	24/	per gross.
" 5.—Astringent Balls	...	...	24/	"
" 12.—Condition Balls	...	...	24/	"
" 6.—Cordial Balls	...	...	24/	"
" 7.—Cough Balls	...	...	24/	"
" 16.—Cough Balls	...	...	27/	"
" 17.—Cough Balls	...	...	27/	"
" 8.—Diuretic Balls	...	...	24/	"
" 9.—Fever Balls...	...	...	24/	"
" 1.—Physic Balls	...	...	24/	"
" 2.—Physic Balls	...	...	30/	"
" 3.—Physic Balls	...	...	36/	"
" 18.—Physic Balls	...	...	42/	"
" 19.—Physic Balls	...	...	48/	"
" 15.—Stimulating Balls	...	...	24/	"
" 10.—Tonic Balls...	...	...	24/	"
" 11.—Tonic Balls...	...	...	20/	"
" 13.—Worm Balls	...	...	30/	"
" 14.—Worm Balls	...	...	60/	"

#### PRIVATE FORMULÆ.

WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes.



**ACID, ACETIC, B.P., ACID, ACETIC, GLACIAL.** Pure for Vinegar & Pickles.  
**PEROXIDE of HYDROGEN**, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone, &c.  
**NITRATE OF AMMONIA.** Pure for Dental purposes. Common for Ice Machines.  
**PHOSPHORIC ACID, B.P.** strength and concentrated, Pure and Free from Arsenic.  
**LIQ. FERRI PERCHLOR. FORT., B.P.** Free from Arsenic, and Soluble in Spirit  
**HYPOPHOSPHITES of LIME, SODA, &c. CYANIDE of POTASSIUM.**

Ferri et Ammon. Cit., Ferri et Quiniæ Cit., B.P., and other Scale Preparations.

**DUNN & CO.,** Stirling Chemical Works, **WEST HAM, LONDON.**

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**MANUFACTURING CHEMISTS,** WHOLESALE AND EXPORT **DRUG MERCHANTS**  
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Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application

**DEALERS IN PURE CHEMICALS**

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot;  
 Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine;  
 Aniline Dyes; Bees' Wax, &c., &c.

Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt. casks. Most Favourable  
 Quotations can be given on application.

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**MAY, ROBERTS & CO.** will sell **WITHOUT AGREEMENT**

2s. 9d. Size ... .. 26s. per dozen.

4s. 6d. „ ... .. 44s. „

**LIBERAL CASH DISCOUNT TO LARGE BUYERS.**

**9 CLERKENWELL ROAD, LONDON, E.C.**

**WM. RADAM'S MICROBE KILLER.**  
 CURES ALL BLOOD DISEASES.  
 Pleasant, Refreshing, and Invigorating.  
 Especially Useful in Hot Climates.  
 411 OXFORD STREET, LONDON, W.  
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**EADE'S**

CELEBRATED

**GOUT**

AND RHEUMATIC

**PILLS.**

**THE SAFEST and MOST EFFECTUAL CURE for**

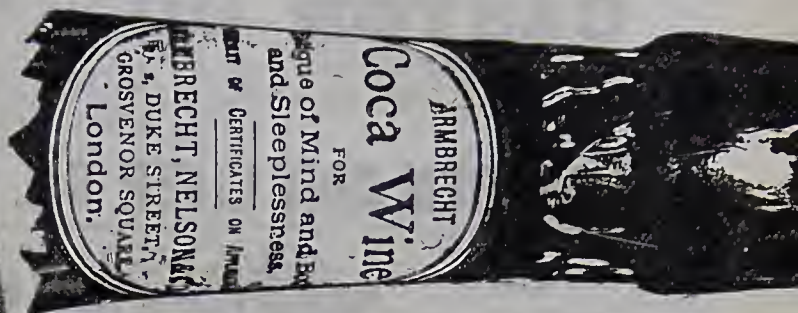
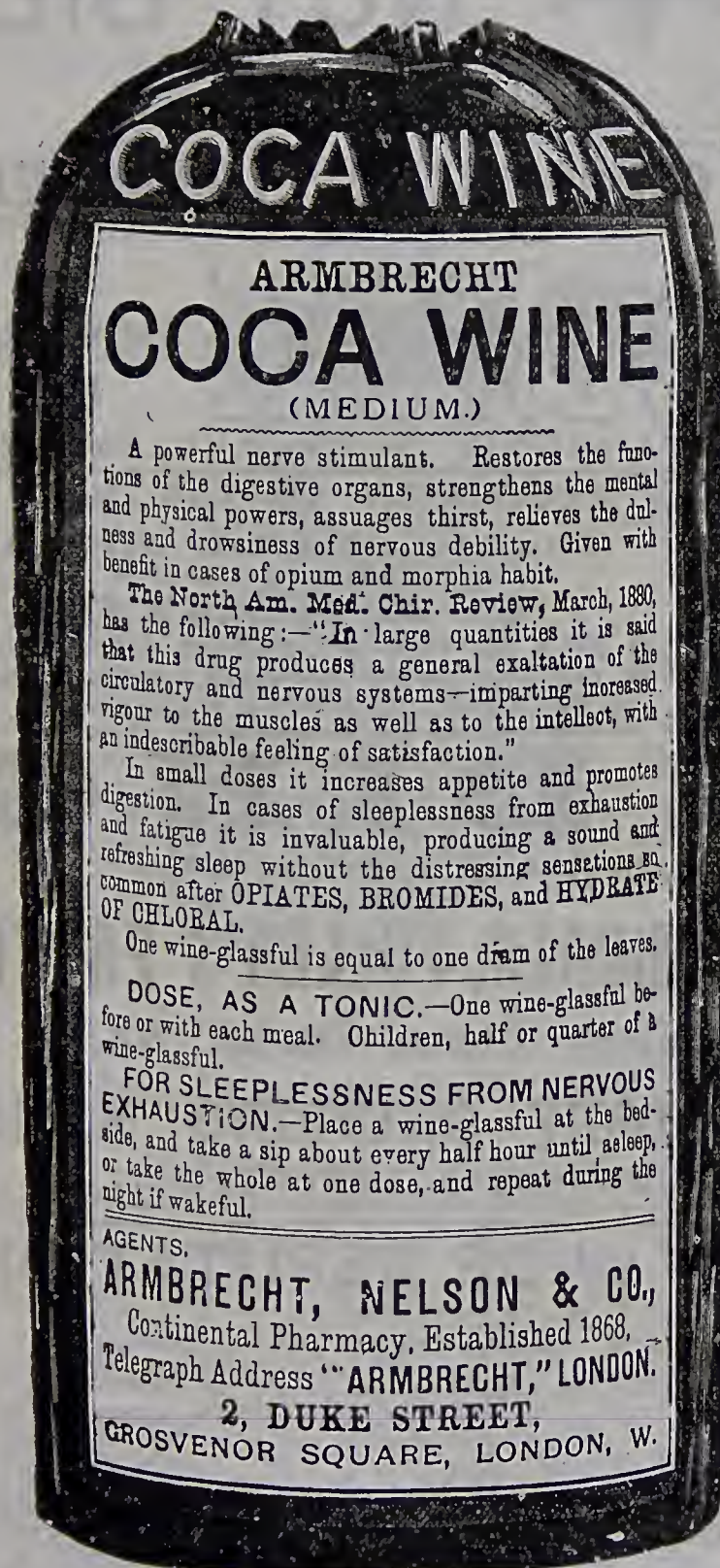
Gout,  
 Rheumatism,  
 Rheumatic Gout,  
 Lumbago,  
 Pains in the Head  
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They require neither confinement nor alteration of diet, and in no case can their effect be injurious.

Prepared only by **GEORGE EADE,**  
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"Several preparations of Coca Wine have been placed before the public, but we unhesitatingly accord to the above the first place. Their Coca Wine is more suited to the English palate than some of the continental preparations, which are too sweet to be palatable, and which destroy their otherwise tonic and invigorating qualities by deranging the digestive system or creating nausea. The value of Coca Wine in conditions of debility is too well recognised to require comment, and we need do no more than say that after a very careful trial of Messrs. ARM-BRECHT, NELSON & Co.'s Wine we can speak most highly of it as a sound and invigorating tonic, and can recommend it most unhesitatingly."—*Journal of Laryngology and Rhinology.*

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A SUBSTITUTE FOR COCA WINE,

Or for making Coca Wine by adding five drops (or more) to Wine.

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[This Illustration represents the  
EXACT SIZE  
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Very liberal discount and nice Show  
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Sold by all Wholesale Druggists throughout Great  
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BULK supplied from Stock at Hull & London.

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(Very Pale and Sweet.)

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*Please write for Samples and Quotations, and specify quantity required.*

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All  
Wholesale  
Houses.  
LONDON, CHRISTIANIA, STAMSUND, AND SYLTEFJORD



43  
SNOW HILL,  
E.C.

INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

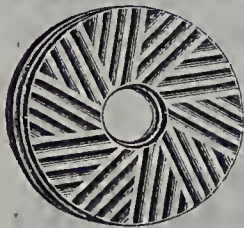
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In all its branches by Patent and Improved Steam Machinery.



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Seeds, Spices, Roots, Barks, &c.

**JORDAN & CO, BERMONDSEY GRINDING MILLS,**  
WHITE'S GROUNDS, BERMONDSEY, LONDON, S.E.

**"SPECIALITIES" OF WIDE REPUTATION**  
Suitably Packed for Home and Export, in various Languages, for all Markets.

<p><b>'COAGULINE'</b> The Best Cement for all Broken Articles.</p> <p><b>'LAVA' CEMENT.</b> A fusible impervious Patent Glass Valve For Feeding Bottles.</p> <p><b>ABSORBENT COTTON WOOL.</b></p>	<p><b>COMPOUND ESSENCE OF LINSEED,</b> Aniseed, Senega, Squill, Tolu, &amp;c.</p> <p><b>THE OXYMEL SCILLE</b> (exceptionally brilliant) Doc. Senega Co. Const.</p> <p><b>PHOSPHOSACCHARITE.</b></p> <p><b>GLYCERINE.</b> Linum Glycerinum.</p>	<p><b>'SAPO-LINI'</b> (Saponified Linseed Jelly).</p> <p><b>EMOLLIENT</b> For Chapped Hands, &amp;c.</p> <p><b>ELASTIC STOCKINGS, KNEE CAPS, SOCKS, ETC.</b></p> <p><b>MERRICK'S PATENT BELTS,</b> For Abdomen, Back, &amp;c.</p> <p><b>TOILET SOAP.</b></p>	<p><b>CHEMICAL DISINFECTANT.</b></p> <p><b>BIRD LIME.</b></p> <p><b>TIC PILLS,</b> LINUM CATHARTICUM PILLS, Aspinall's PILLS, &amp;c.</p> <p><b>GUN COVER and CARRIER.</b> "THERMONE," or HEAT RADIATOR.</p>
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# THE CARBOLIC SMOKE BALL

WILL POSITIVELY CURE—

FOR INHALATION ONLY.



COLDS  
COLDS in the HEAD  
COLDS on the CHEST  
CATARRH  
ASTHMA  
BRONCHITIS  
HOARSENESS  
LOSS of VOICE  
INFLUENZA  
HAY FEVER  
NEURALGIA  
THROAT DEAFNESS  
CROUP  
HEADACHE  
WHOOPIING COUGH

*As all the Diseases mentioned proceed from one cause, they can therefore be cured by one remedy—namely, the CARBOLIC SMOKE BALL.*

## THIS INFALLIBLE REMEDY IS USED BY

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# THE TRADE ARE RESPECTFULLY REQUESTED TO HOLD STOCK OF BAYLEY'S WOOD OILS,

Which is now being extensively advertised. It may be obtained from the following Wholesale Houses;—

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We distil pure oil of Eucalyptus **GLOBULUS** (which contains 66 per cent. of Eucalyptol, far in excess of any other variety) as a by-product in the manufacture of our Eucalyptus Boiler Fluid, and are therefore enabled to place it in quantities at a much lower rate than has heretofore been asked for it.

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**PURE TARTAR EMETIC.**

**PURE OXIDE OF ANTIMONY.**

Showing 98 per cent. of anhydrous  $Sb_2O_3$ .

This product is obtained BY A NEW PROCESS, and is offered at VERY ADVANTAGEOUS PRICES.

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Manufacturers' Agent & Importer of the following

**CHEMICALS**

Acetate of Lead. Permanganate of Potash.  
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Glycerine. Alcohol. Ethers. Chloroform. Acetanilide.  
Boracic, Lactic, Tannic, Tartaric Acids.

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A PREPARATION OF CERIUM OXIDE (CAREFULLY PURIFIED)  
IN COMBINATION WITH CITRIC ACID AND AMMONIA

DOSE.—3j DILUTED.

EQUIVALENT TO A FULL DOSE OF CERIUM OXALATE



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**QUININE FACTORY AUERBACH**

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Certified by Professor Fresenius, of Wiesbaden, as  
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THE FACTORY SUPPLIED THE

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Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

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METAL SCREW-CAPPED LIMES, in White Flint, Actinic Green, or Amber. The Best Bottle for Glycerine or Pills. Prices: 1 oz. 13/6, 2 oz. 15/-, 3 oz. 18/-, &c. per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered.

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Reduces lumpy powders, sifts and mixes faster and makes a more perfect blend than any Machine in the Market.

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FOR HAND OR POWER.

Capacities, from 15 to 300 lbs. at one mixing.

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1/2 oz. & under 3/6	1 3/9	1 1/2 4/6	2 ounce. 5/3 per gross.
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DITTO—VERY SUPERIOR QUALITY.

1/2 4/6	1 5/	1 1/2 5/6	2 ounce. 6/ per gross.
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PANEL BOTTLES, BLUE TINTED.

1 6/	2 7/	4 8/	6 9/	8 ounce. 9/ per gross.
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# THE ONLY BOX

That fulfils ALL the requirements of the POST OFFICE.



Is fastened INSTANTLY.

Cannot open by accident.

Is immensely strong.

Has no corners.

No seams, joints, nor solder.

Nothing to scratch or tear letters.

Is practically air-tight:—Is used for Flour, Cherry Blossom, Sanitas, and Soap-Powders.

Dispenses with string, bags, and paper.

Saves 19 minutes out of 20.

**OVER 300,000 SOLD.**

SAVING THEIR OWN COST.

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**IMPORTERS**

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CHEMISTS' & DRUGGISTS' DIARY  
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*Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.*

**NEARLY 2,000 IN USE**

**In all parts of the World.**

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable.

Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

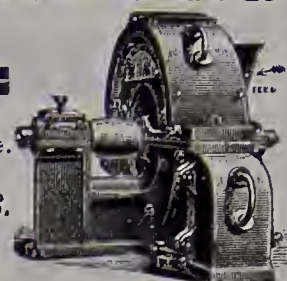
**THE BEST MACHINES IN THE MARKET FOR CHEMICAL MANUFACTURERS.**

Samples of ANY Material will be Ground free of charge.

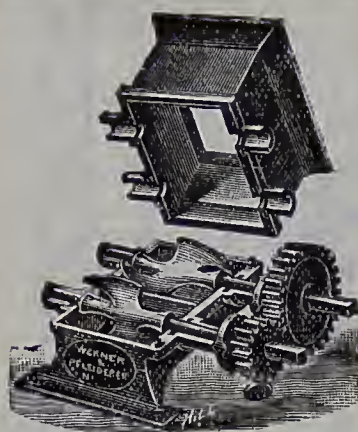
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"MILLING LONDON."

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N200



Size 3. Type I. for 1-lb. M288

## THE "UNIVERSAL" KNEADING AND MIXING MACHINE FOR PILL MASS MAKING,

ALSO FOR

Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for general Mixing and Incorporating.

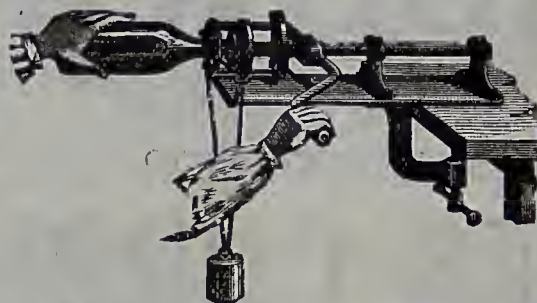
REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from  $\frac{1}{2}$  lb. up to 1 ton at a time.

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# NEW CAPSULING MACHINE

The only Machine  
which leaves no crease  
or pleat on the  
Capsule



Can be fixed to any  
Counter.  
A single pull of the lever  
is sufficient  
to fix the Capsule.

Patentee **C. MELIN, 37 Crutched Friars. LONDON, E.C.**

## MACHINERY for the MANUFACTURE of PHARMACEUTICAL PREPARATIONS

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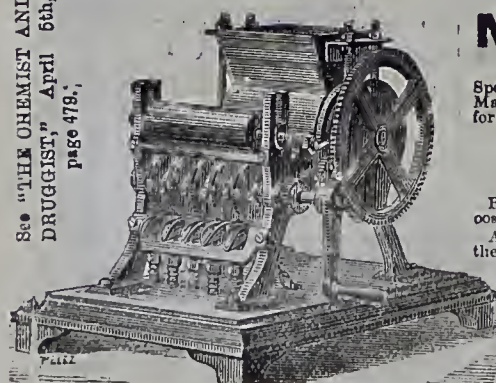
Pill-printing has long been considered a luxury, and remained in the hands of a Paris house, which alone possessed a proper coating process.

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See "THE CHEMIST AND DRUGGIST," April 5th, page 479.



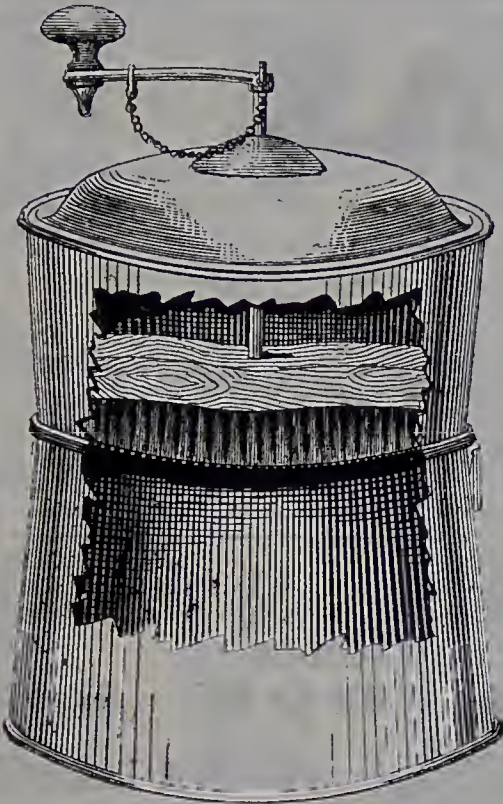


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### TOOGOOD'S BRUSH MIXING MACHINE.

To mix 3 lbs. Powder ... .. 12/- each.  
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All stock Machines are fitted with Sieves 60-mesh, but any other sizes can be supplied at same price.

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REGISTERED No. 138,518.



#### PRICES:

In White Earthenware ... .. 4/- each.  
In Stoneware .. ... 2/3 each.

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## INFANT'S PORTABLE FOOD STOVE.

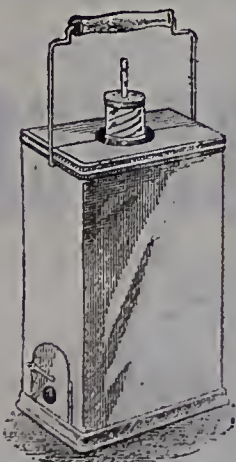
THE BEST MEANS OF HEATING CHILDREN'S MILK.

MAINTAINS A TEMPERATURE OF 98° F. SIX TO SEVEN HOURS.

DOES NOT CAUSE THE MILK TO TURN SOUR.

DESCRIPTIVE PAMPHLET POST FREE.

Prices: 6/-, 8/6, 10/- each.



Colonial and Foreign Enquiries and Correspondence solicited.



# PETROLEUM JELLY.

Equal to VASELINE and much CHEAPER.

**GOLDEN, YELLOW, RED, AND WHITE.**

ANSWERS ALL REQUIREMENTS OF THE B.P.

Large 1d., 2d., & 3d. Tins, in 1-gross Boxes, and in usual-size Tins & Casks.

Save 25 per cent., and write for samples and quotations from the makers,

**HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.**

# BEESWAX.

**W. H. B. PURE REFINED.**

In 2-lb. oakes, in cases of about 130 lbs.

" 1 "	" "	130 "
" 1/2 "	" "	110 "
" 1/4 "	" "	110 "

" oz. cakes in 2-lb. parcels in cases of 54 lbs.

**W. H. B. PURE WHITE.**

In round cakes in 2-lb. parcels, or in oblong cakes, loose } in cases of 54 lbs.  
In oz. oakes in 2-lb. parcels } and 56 lbs.  
Plain blocks of 7 1/2 lbs. in cases of 250 lbs.

**WHITE WAX.**

Plain round cakes in 2-lb. parcels in cases of 72 lbs.

The purity of these goods is certified by the following eminent chemists: S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysts of Eng., Montreal, P. Q.; Edward Davies, F.O.S. and T. I. O. and C., Royal Institution, LIVERPOOL, Eng.; Bernard Dyer, D.Sc., F.C.S., F.I.O., Member of the Society of Public Analysts, 17 Great Tower Street, LONDON, E.C., Eng.; Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal., and may be obtained of any of the leading Wholesale Druggists in the Northern and Midland Counties.

We will deliver our goods in 5-cwt. lots ex quay, in any city which is the terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

Our Goods may be obtained in single Case lots from any of the Leading Wholesale Druggists in the Northern and Midland Counties, and of

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SOLE MAKERS OF

**GABRIEL & TROKE'S  
GELATINE  
CAPSULED  
HORSEBALLS.**



ELEGANT IN APPEARANCE.  
EASY IN ADMINISTRATION.  
EFFICIENT IN ACTION.

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

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**50 YEARS' UNBROKEN SUCCESS.**

**SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS**

TO BE HAD OF USUAL WHOLESALE HOUSES.



**S.V.R., B.P.**

We wish to draw the attention of Chemists to the excellence of the spirit we supply for pharmaceutical purposes. We have devoted great care and attention to this branch and have made it a leading line.

That our efforts in this direction have been appreciated is proved by the number of *unsolicited* testimonials we have received from nearly every town in the country, of which the following is a specimen:—

GENTLEMEN.—

Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

Messrs. Stephen Smith &amp; Co.

The Pharmacy, Morecambe.

Yours faithfully, JOSH. N. CUTTS, B.Sc., F.C.S.

In consequence of the increase in the spirit duty our prices will be—

S.V.R. 56 o.p. ... .. 19s. 5d.

Double Distilled, 56 o.p. ... .. 19s. 9d.

CASH WITH ORDER.

REDUCTIONS FOR QUANTITIES.

**SPECIALITY FOR PERFUMERY.**

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 20/, 56 o.p.; 20/6, 60 o.p. Cash with Order. Reductions for Quantities.

**STEPHEN SMITH & CO., BOW, LONDON, E.**

**S**  $\frac{0}{56}$  **V**  $\frac{0}{60}$  **R**  
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CASH  
WITH  
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SPECIAL TERMS TO LARGE BUYERS.

49 CLERKENWELL  
ROAD, LONDON, E.C.

THE

CHEAPEST HOUSE

FOR METHYLATED SPIRIT

TREBLY DISTILLED BY OURSELVES.

PERFECTLY PURE.

FIT FOR ANY  
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**S**  $\frac{0}{61}$  **V**  $\frac{0}{64}$  **M**

Jars, 2-gallon, 2/6; 3-gallon, 3/; 4-gallon, 4/  
Drums, 5-gallon, 3/6; 8-gallon, 4/; 10-gallon, 6/.

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LARGEST MAKERS IN THE KINGDOM.

We are prepared to supply METHYLATED SPIRIT in  
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FINEST ORANGE WINE FOR QUININE.

**JAMES**  
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65 o.p. 60 o.p.

CALE ST., CHELSEA, S.W.

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AT LOWEST PRICES.

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**E. C. Z. A.****THE NEW SKIN SOAP,**

MADE ONLY BY

**BAYLEY & CO., 17 COCKSPUR ST., LONDON,**

THE SOLE AND ORIGINAL MANUFACTURERS OF

**"ESS. BOUQUET" PERFUME and of the Celebrated "SPERMACEI SOAP TABLET."****AMERICAN  
"CRÈME" TOOTH PASTE.**

Vast is the difference between a "Crème" Tooth Paste and a Tooth Paste. Americans have used the above for 15 years. It is the only "Crème" Tooth Paste sold in England. It cleanses the Teeth, perfumes the Breath, and removes Tartar.

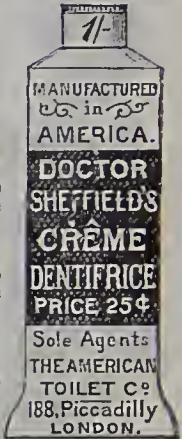
**CHINA JARS, 2/- SILVER TUBES, 1/-**

The beautiful way in which the "Crème" Tooth Paste is "got up" alone secures its sale. There is not another preparation in the United Kingdom which is turned out so well. Show Cards and Circulars with all orders of 1 Dozen upwards.

**SPECIAL OFFER TO AGENTS.**

With every dozen full-sized Tubes or Jars ordered in first order, we will give 1 dozen Sample Tubes or Jars. The samples are 1-size facsimiles. Write for Special Terms and Samples.

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**THE AMERICAN TOILET COMPANY, 188 Piccadilly, LONDON W.,****R C TREATT****Dunster House Mincing Lane  
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**Musk Civet Ambergris Attar - of - Rose****ESSENTIAL OILS**

Wholesale  
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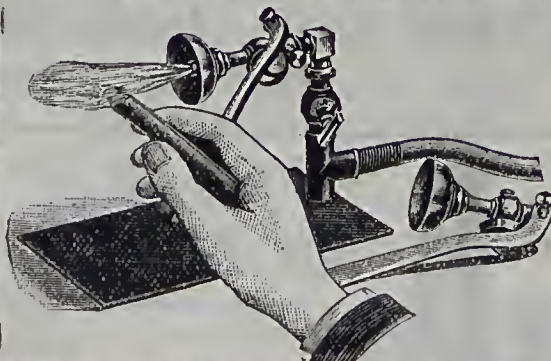
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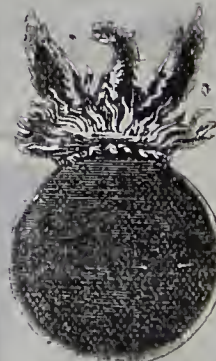
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**HAWES' PATENT  
SELF-ACTING SEALING JET**

Adapted by the Apothecaries Hall and  
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Great saving in Gas and Labour.



QUITE NEW.

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IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

**WHITE LEAD, ZINC WHITE,**  
**PAINTS & COLOURS** OF ALL KINDS.**MIXED PAINTS READY FOR USE,**  
In Tins, 1, 2, 4, 7, and 14 lbs. each.**HIGH-CLASS VARNISHES****BALL DENOTES  
COLOUR OF PAINT.**

Of all kinds, for Coachbuilders, Decorators, &c.  
**OIL BOILERS, REFINERS, & MERCHANT**  
Export Orders receive special and prompt attention



# RICHARD D. YOUNG'S HIGHEST CLASS AMERICAN PERFUMES.

## SPECIAL ODORS.

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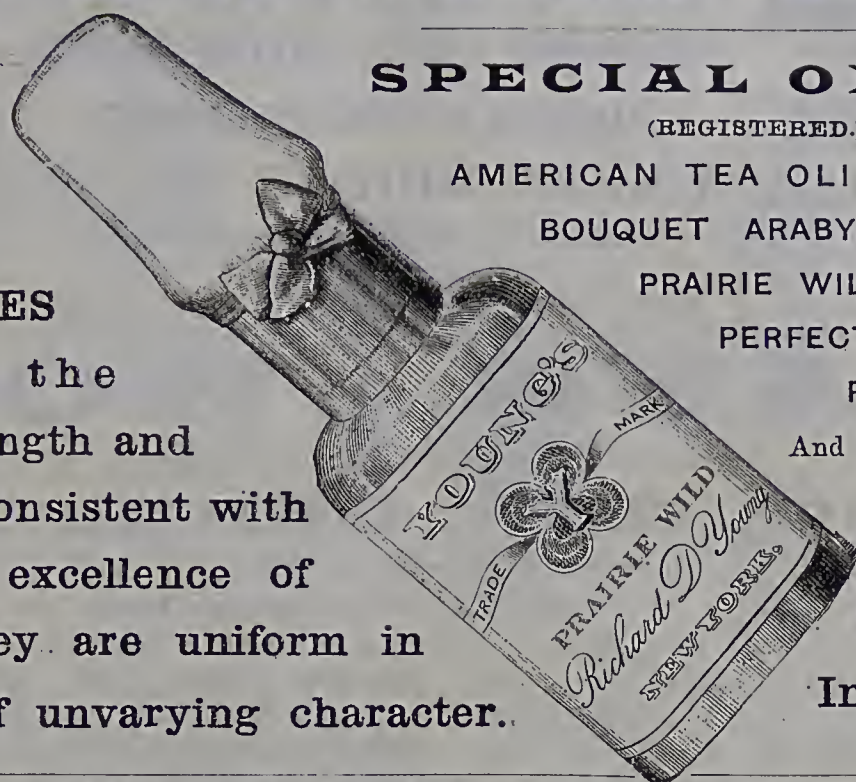
AMERICAN TEA OLIVE,

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PRAIRIE WILD. MELAURA.

PERFECT VIOLET,

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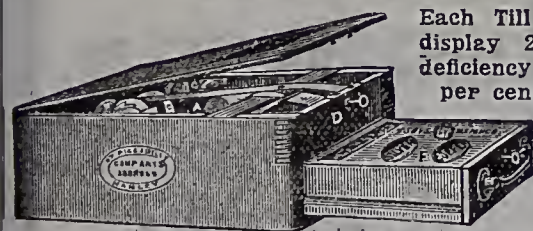
And the usual staple  
assortment.OF ALL WHOLESALE  
HOUSES.In 1-oz. & 2-oz.  
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YOUNG'S  
PERFUMES  
combine the  
greatest strength and  
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merit and of unvarying character.

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## STOKES' PATENT CHECK TILL SYSTEM.

A SOUND INVESTMENT.



Each Till has only to  
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30,000

Sales Checked  
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3 SHILLINGS.

Terms and full particulars on application.

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**ALMANACKS** 1891  
FOR  
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## H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-,

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Egg Julep, 2/-, 4/-

CONCENTRATED

Egg Julep, 2/6,

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Stimulating Lotion, 5/-

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Lotion, 5/-, 10/6.

Quinine and Arnica

Hair Wash, 3/6,

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10/6.

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**EUCHRISMA.**  
Combines in one clear fluid every valuable  
Component both of a Hair Grease and Wash,  
3/6, 5/-, 10/6, 21/-.

**EAU RACINE.**  
For renewing the original colour of Gray Hair;  
superior to all other Restorers, being perfectly  
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An elegant Preparation for  
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Price 2/6, 3/6, 5/-, 10/6, 21/-.

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H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)

PRICE ONE SHILLING.

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.



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**GAMGEE TISSUE.**  
(PATENT ABSORBENT GAUZE AND  
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**ABSORBENT  
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ROLL BANDAGES  
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**ROBINSON & SONS,**  
COTTON SPINNERS AND MANUFACTURERS OF  
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Depot 66 Rand Street, Aldersgate Street, London.

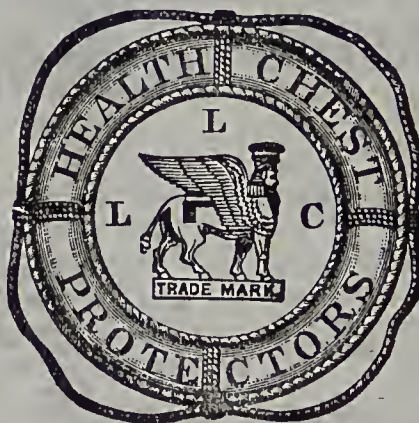


**FRANK WOOD**  
(From W. WOOD & SON, MANCHESTER),  
**42 BELVOIR STREET, LEICESTER.**

Trusses, Single...	...	...	12/6 per doz.	Elastic Stockings, Cotton ...	...	2/2 each.
„ Double	...	...	20/- „	„ „ Silk	...	3/4 „
„ Single Femoral	...	...	17/- „	Suspenders, Cotton Bags	...	6/6 per doz.
„ Double	„	...	28/- „	„ Silk Bags	...	14/- „
„ Single Scrotal	...	...	34/- „	Clinical Thermometers	...	25/- „
„ Double	„	...	52/- „	Elastic Gum Catheters	...	7/6 „

**TERMS—CASH WITH ORDER, POSTAGE EXTRA.**

The only make of  
**CHEST PROTECTORS**  
that will Wash  
WITHOUT INJURY.



Manufacturers:  
**THE  
LIVERPOOL LINT CO.**  
MARK ST. MILL,  
**LIVERPOOL.**

**TURNED METAL FLASK & BOTTLE CAPS**  
For Spirits, Oils, Perfumes,  
Salts, &c.



[2]

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Established 1820. Telegraphic Address—"COLLAPSIBLE LONDON."



# SPECIAL OFFER FOR XMAS!!



**Richly Cut Toilet**  
Globe shape ... 36/ doz.  
No. 175 do., smaller 20/ ..  
No. 146 do., larger 42/ ..



No. 279.  
**China Watch**,  
prettily decorated,  
4/ doz.  
No. 281.—Smaller,  
3/6 doz.

No. 289.  
**A Novelty.**  
China Watch, dark  
blue and gold deco-  
rations, with vio-  
lets, and the words,  
"Eau de Cologne,"  
burnt in gold in the  
china, 6/ doz.



No. 1.—**Spray**  
Very pretty blue opaque glass,  
raised pink flowers, double ball,  
28/ doz.



No. 280.  
**China**  
**Octagon**,  
with flower de-  
coration,  
3/6 doz.

No. 138.  
Sweetly pretty  
bottle for per-  
fume, with long  
neck, not hold-  
ing too much,  
6/ doz.



No. 170.  
**Hobnail Barrel**  
Toilet, crystal stopper,  
4 oz. 22/; 6 oz. 42/.

Articles Chemists **CAN SELL** at this season are

## SMELLING BOTTLES

TOILET & CHINA BOTTLES, ODORATORS, &c.,

And a **SPECIALLY ADVANTAGEOUS OFFER** is made, to **LAST TILL XMAS**, by  
which the Trade, by sending a

Postal Order for 20/-, will be supplied with 23/- worth of either

of above class of goods, as follows:—

Parcel 1.—Cut Glass Bottles. Parcel 3.—China Bottles for Perfume.

Parcel 2.—Odorators.

Parcel 4.—Toilet

Parcel 5.—English Cut Glass Bottles only.



No. 3.  
**Opaque Glass**,  
as No. 1, single ball,  
with raised flowers,  
17/ doz.

No. 157.  
**Hobnail**  
**Cut Toilet**,  
polished neck,  
2 oz. .. 12/  
4 oz. .. 21/  
6 oz. .. 38/

Buyers can rely on good Assortments being sent, suited to Xmas Trade, and can, of course, order as many Parcels as they choose, but as the offer only lasts till the end of the year, do not delay, but take immediate advantage of it. In ordering, please state carrier, or to whom goods may be enclosed. Orders sent off the same day as received.

**DON'T FORGET—CHINA BOTTLES AND SPRAYS ARE BOUND TO GO AT THIS SEASON.**

### SCENT PISTOLS

Of coloured glass, filled with Eau de Cologne and Lavender Water, 3/9 doz.

### FANCY CHINA FIGURES

A charming line for Christmas, filled with various scents, 4/ doz.

## ETIENNE FRÈRES' PERFUMERY.

**CHARMING PERFUMES, ATTRACTIVELY BOXED, HANDSOMELY LABELLED.**

1/ size, 1 oz. in well-stoppered Lundborg shape Bottle, 8/ doz.; 2 oz. 13/ doz.; 4 oz. 24/ doz.

**SPECIAL FEATURE.**—Chemist's own name stamped on the label, if 3 dozen assorted sizes are ordered.

TO INTRODUCE ETIENNE FRÈRES' goods, a wonderful **SAMPLE TUBE** is put up, to **SELL RETAIL** at 1d., containing **PERFUME EQUAL TO THAT IN 1/ BOTTLES**, prettily labelled, carded attractively on 1/4 and 1/2 gross cards, 8/ gross.

**THIS IS WITHOUT DOUBT A MARVELLOUS ARTICLE AT THE PRICE.**

**ARTHUR W. SHIRLEY, 55 FARRINGDON ROAD, LONDON, E.C.**



This old-established and celebrated preparation for the Teeth is attractively put up in the form of Liquid, Powder, and Paste, is now being largely advertised to the public.



THE GENUINE  
**EAU DE BOTOT**

IS THE ONLY DENTIFRICE APPROVED  
By the Academy of Medicine of Paris.

	Size	Size	Size
EAU de BOTOT	1/6, 11/9;	2/6, 20/;	5/ 32/9 doz
POWDER	1/ 8/6;	2/6, 17/	doz.
PASTE	1/ 8/6;	2/6, 17/	doz.

Of all Wholesale Houses.

SAMPLE BOXES,  
Containing  
Powder, Paste, & Liquid  
per 8/- doz.

N.B.—See each Article  
has the Signature—

*M. J. Botot*

**OKELL'S ORIGINAL  
MONA BOUQUET**

Retail, 1/ 1/9, & 3/6; Wholesale, 7/ 12/ 6, & 22/8 per doz.

This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Sole Consignee—THOMAS WEST, 59 and 61 Chester Road, Stretford, Lancashire.

Special Agents—B. G. LENNON & CO., London, and Port Elizabeth, Cape Town, and East London, South Africa.

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Have been awarded the ONLY



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GOLD MEDAL



At the Paris Exhibition, 1889, for  
**ENGLISH BRUSHES**

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**CHLOROFORM**

(PATENT 8525.)

The purest & cheapest.

MANUFACTURED BY THE

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Supplies may be obtained through the Wholesale Houses.

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Dr. ZIEMER'S  
**ALEXANDRA-  
DENTIFRICE**

Matchless for the  
Teeth, Gums, and Breath!

Guaranteed Non-  
injurious to the  
Enamel.

Of all  
Wholesale  
Houses.



Prices:

1/3 size	9/-
2/-	15/-
3/6	24/-
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Show Cards &c.,  
forwarded on application.

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143 Cannon St., LONDON, E.C.

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MRS. E. FILCE'S



**OINTMENT.**

None genuine with-  
out bearing the regis-  
tered trade mark.

SOLD IN 7½d., 1s. 1½d. and 2s. 9d. POTS.

Sole Proprietress—Mrs. E. FILCE.

(To be had of Chemists & Druggists throughout the United Kingdom.)

Local Address—1 Theobald Road, Croydon.



REGISTERED.—More effectual than Mustard Leaves. May be obtained through any Wholesale House.

**CAPSICUM** is highly recommended in *The Lancet* by Sir J. S., M.D., and Dr. H. J. B. for the treatment of Rheumatism, Neuralgia, Bronchitis, Bronchial Catarrh, Sub acute Gout, &c.



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Of COLOGNE, having been Awarded the SPECIAL FIRST PRIZE MEDAL  
for their Celebrated

# EAU DE COLOGNE

AT THE

## SYDNEY EXHIBITION, 1879,

Have the pleasure to announce to the Public that they have also obtained the First Prize Medal at the  
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They trust that the above distinctions conferred upon them by such expert judges will be sufficient guarantee that the Eau de Cologne of their manufacture is, without doubt, the best. They beg to append a List of Prize Medals obtained at other Exhibitions:—

LONDON, 1851.  
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The above Firm only export to England their DOUBLE Eau de Cologne, and request their Customers, in comparing the Prices of the different Brands, to take into consideration that the bulk of those sold with the white label are single (or only half strength of the Double), which enables the Makers to sell at a low price with great profit. If they will trouble to compare the subjoined Prices with those of any firm manufacturing Eau de Cologne DOUBLE, the comparison will be greatly in favor of our Brand.

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	Duty Paid, Net.	In Bond.		Duty Paid, Net.	In Bond.
No. 1.—Half Shorts.....	8/6	5/6	No. 4.—Long Green Flasks.....	16/-	11/-
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No. 7.—Wickered Bottles (Large).....			106/- duty paid, net; 77/- in bond.		

Small Cases assorted to order (of not less than £3 value in bond) delivered free freight, less 7½ per cent. discount.

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Flowers, and most choice  
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Water.**

176 &amp; 177 STRAND, LONDON.

Established 1839.

Wholesale and Shipping terms on application.

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Honey, Rhubarb, Insect Powder, Saffron, &c., &c.Country orders for original packages included in public sale purchases at fractional  
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(VIN. AURANT., P.B.)

Specially brewed for Quinine Wine. Does not deposit, will keep good in any climate.  
In casks, 12 gallons to 140 gallons; small casks 3s. 6d. per gallon, carriage allowed  
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bottles included. Casks and cases extra, and returnable.

Sample four stamps.

Special quotations to large buyers.

DURRANT &amp; CO., Railway St., HERTFORD.

THE OLDEST ENGLISH & AMERICAN CHEMIST  
in PARIS (founded 1808)**BOISSY late GALLOIS**2, Place Vendôme, Corner of rue St-Honoré  
would undertake one or two additional  
agencies for patent Medicines, Sundries, etc.  
Special connexion amongst Doctors  
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SHRINKING entirely PREVENTED.

**Lucas "EVICTOR" Soap**Is a SPECIALITY exclusively for Washing WOOLLEN Goods  
THAT ARE LIABLE TO SHRINK.Neatly wrapped, full instructions, 1/4 Gross Boxes, 18 1/2 Gross Tablets.  
Of all Wholesale Houses, and C. W. LUCAS & CO., 51 Milton St., London, E.C.**Jn. GIRAUD FILS**FINE PERFUMERY AND TOILET SOAPS,  
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FIRST PRIZES AWARDED AT EVERY EXHIBITION.

Large Gold Medal at Nizza, 1884. LARGE GOLD MEDAL, with Special Mention, at  
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should apply to**FREDK. FINK & CO.**

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**PRECIPITATED CHALK, WHITEST AND  
PUREST.**CHEAPEST SELLERS IN THE MARKET.  
ALSO CHEMICALS, DRUGS AND OILS.AUG. LEVERMORE & CO.,  
8 LIME STREET LONDON E.C.*Fletcher's  
Hydrobromates*Supplied in Original Bottles ready for  
Patient's use (stamped), to retail at 4/6  
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London, E.C.**EMP. BELLADONNA.**

ON SWANSDOWN, 16 IN. WIDE.

17s. per Doz. net cash.

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Cowburn Street, [2]**CHAMOIS**FOR MIRRORS, SILVERWARE, DOMESTIC, UNDERWEAR  
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Basils, White Norway Doeskins, White Mock Does, Buckskins.

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THE NEW EMOLLIENT SKIN PAINT.

A harmless, non-poisonous, and unique remedy for  
SKIN DISEASES.A few applications will cure the most inveterate cases. It acts like magic, and is  
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Wholesale of J. NEWBERRY &amp; SON.

ESTABLISHED 1855.

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MANUFACTURERS, SANDY, BEDS

Sole Proprietors of Sanford's Celebrated RAT POISON, with-  
out doubt the best ever introduced. Price, 6d., 1s., 2s., and 3s. per box.  
Also MICE POISON; cannot be excelled. In packets, 3d., 6d., and  
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**BARBADOES ALOES.**

Buyers are invited to apply for prices to

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The Largest Holder in England. [2]



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Authorised Agents of COUNT MATTEI,

Are prepared to execute

Large or Small Orders for any of his Preparations.

Send card for terms, with list of Rem. dies and their uses, to

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**GREENSILL'S**  
ORIGINAL**MONA BOUQUET.**

Wholesale and Shipping Terms sent on application to the Sole Manufacturers—

**GREENSILL & SON, DOUGLAS.**  
ESTABLISHED 1852.**WATERPROOF ACCOUCHEMENT SHEETS**

Manufactured for the Patentee by

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